

## 2012 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2012 - 5/31/2013

HERD: EL635 - WIGGINS FORK

HUNT AREAS: 67-69, 127

PREPARED BY: GREG ANDERSON

	<u>2007 - 2011 Average</u>	<u>2012</u>	<u>2013 Proposed</u>
Trend Count:	5,846	5,768	0
Harvest:	675	1,351	1,000
Hunters:	2,021	2,783	2,300
Hunter Success:	33%	49%	43%
Active Licenses:	2,052	47%	2,400
Active License Percentage:	33%	47%	42%
Recreation Days:	13,420	18,650	15,000
Days Per Animal:	19.9	13.8	15
Males per 100 Females:	10	7	
Juveniles per 100 Females	25	22	

Trend Based Objective ( $\pm 20\%$ )

7,000 (5600 - 8400)

Management Strategy:

Recreational

Percent population is above (+) or (-) objective:

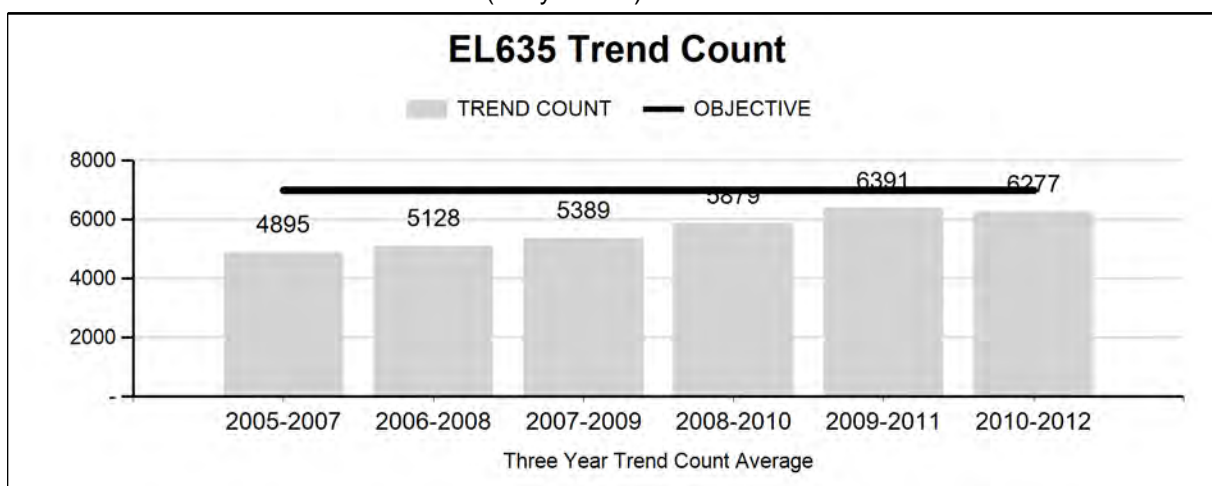
-17.6%

Number of years population has been + or - objective in recent trend:

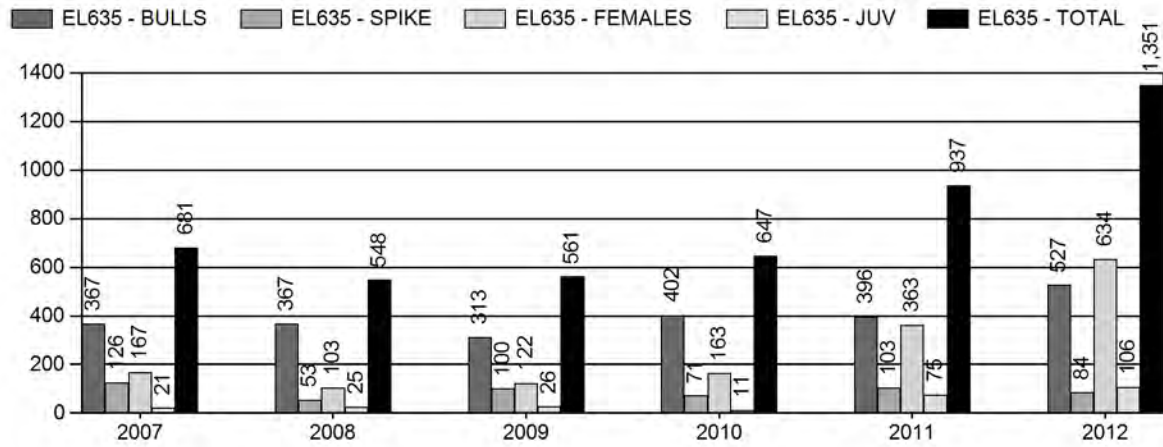
0

### Proposed harvest rates (percent of pre-season estimate for each sex/age group):

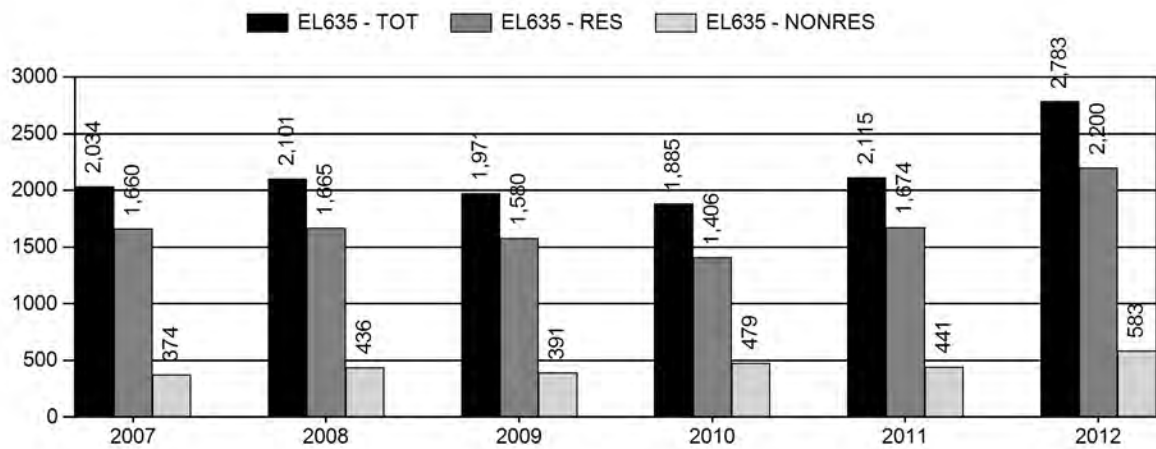
	<u>JCR Year</u>	<u>Proposed</u>
Females $\geq 1$ year old:	0%	0%
Males $\geq 1$ year old:	0%	0%
Juveniles ( $< 1$ year old):	0%	0%



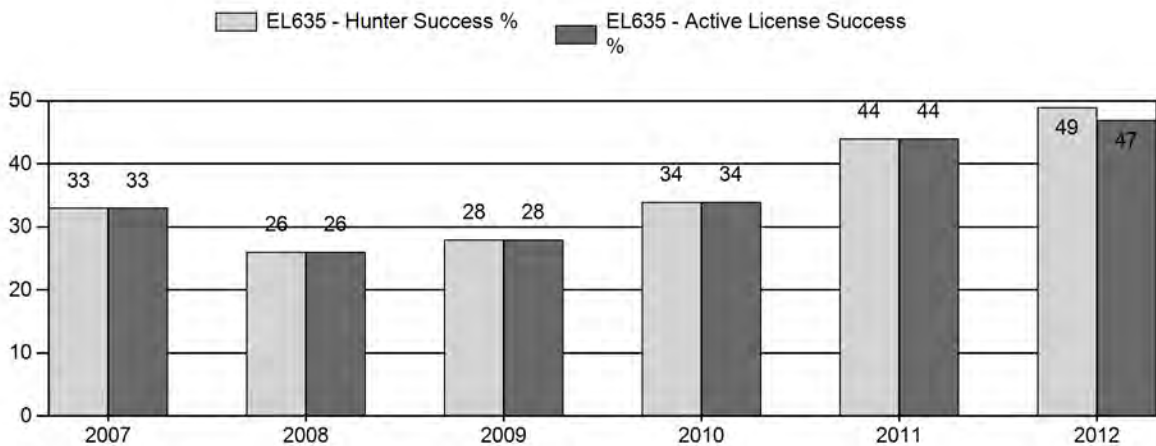
## Harvest



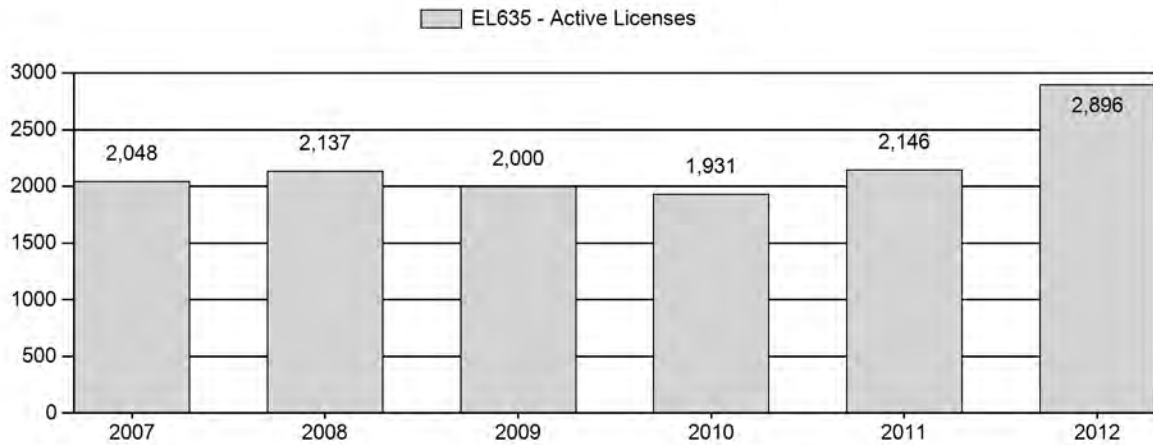
## Number of Hunters



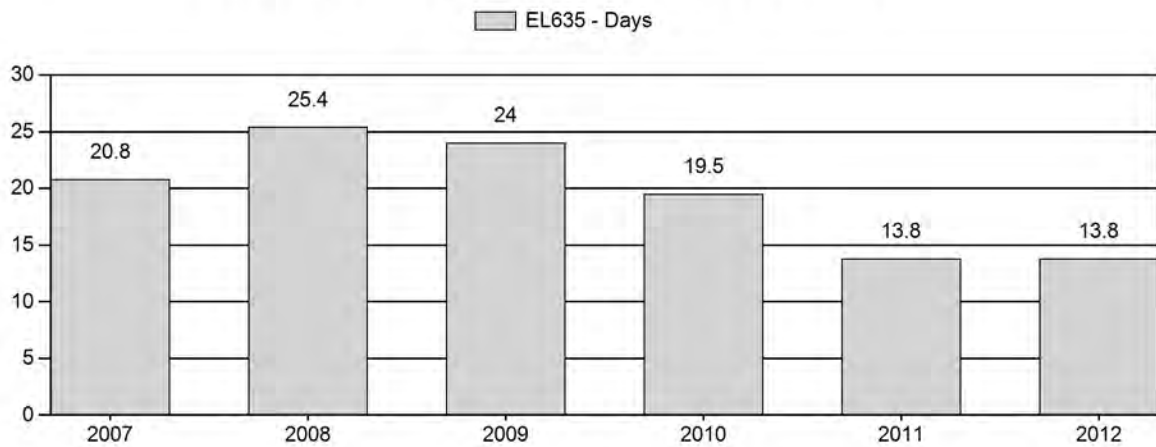
## Harvest Success



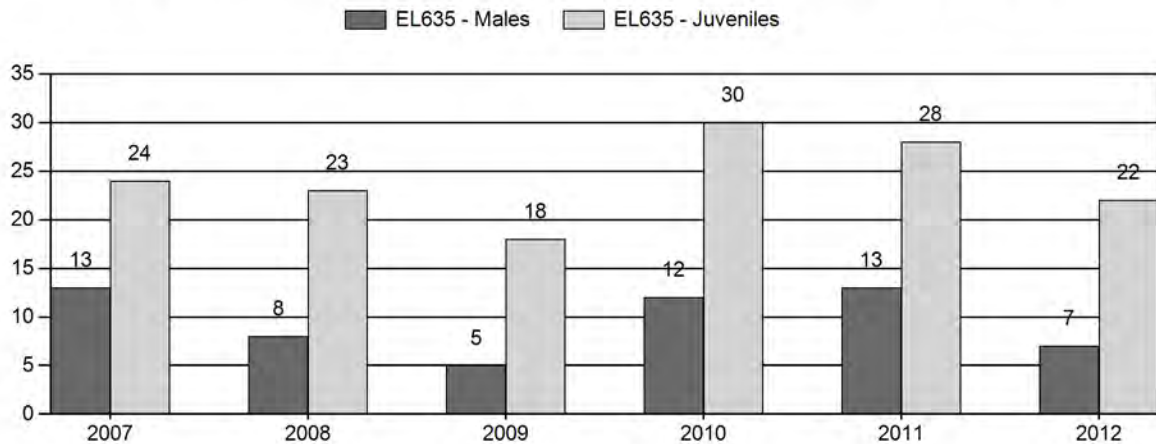
## Active Licenses



## Days per Animal Harvested



## Postseason Animals per 100 Females



## 2007 - 2012 Postseason Classification Summary

for Elk Herd EL635 - WIGGINS FORK

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot Cls	Cls Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			Ylng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2007	5,949	220	77	297	10%	2,255	73%	544	18%	3,096	256	10	3	13	± 1	24	± 1	21
2008	7,164	135	31	166	6%	2,089	76%	485	18%	2,740	234	6	1	8	± 1	23	± 1	22
2009	7,899	117	13	130	4%	2,524	81%	456	15%	3,110	168	5	1	5	± 0	18	± 1	17
2010	7,777	276	114	390	8%	3,388	71%	1,019	21%	4,797	346	8	3	12	± 0	30	± 1	27
2011	9,083	202	28	230	9%	1,802	71%	498	20%	2,530	321	11	2	13	± 1	28	± 2	25
2012	0	138	22	160	6%	2,143	77%	463	17%	2,766	0	6	1	7	± 0	22	± 0	20

**2013 HUNTING SEASONS  
WIGGINS FORK ELK (EL 635)**

<b>Hunt Area</b>	<b>Type</b>	<b>Season Dates</b>		<b>Quota</b>	<b>Limitations</b>
<b>Opens</b>	<b>Closes</b>				
67		Oct. 1	Oct. 31		General license; antlered elk
4		Nov. 1	Nov. 30	300	Limited quota licenses; antlerless elk
6		Nov. 15	Dec. 15	400	Limited quota licenses; cow or calf valid west of the Wiggins Fork and west of the East Fork downstream from the confluence with the Wiggins Fork
67, 68, 69	9	Sep. 1	Sep. 30	125	Limited quota licenses; any elk, archery only
68		Oct. 1	Oct. 31		General license; antlered elk
4		Nov. 1	Nov. 30	50	Limited quota licenses; antlerless elk
6		Nov. 1	Nov. 30	150	Limited quota licenses; cow or calf
69		Oct. 1	Oct. 31		General license; any elk
		Nov. 1	Nov. 30		General license; antlerless elk
6		Oct. 1	Nov. 30	75	Limited quota licenses; cow or calf
127		Oct. 1	Oct. 31		General license; any elk
		Nov. 1	Dec. 31		General license; antlerless elk
Archery 67, 68, 69		Sep. 15	Sep. 30		General license; any elk. Limited quota; refer to section 3 of this chapter
127		Sep. 1	Sep. 30		General license; any elk

Hunt Area	Type	Quota change from 2012
67	4	+250
	5	-400
	6	-300
<b>Total</b>	<b>4</b>	<b>+250</b>
	<b>5</b>	<b>-400</b>
	<b>6</b>	<b>-300</b>

### **Management Evaluation**

**Current Management Objective: 6,000-7,000**

**Management Strategy: Recreational**

**2012 Postseason Population Estimate: 7,452**

**2013 Proposed Postseason Population Estimate: unknown**

### **Management Issues**

The Wiggins Fork elk herd is managed based on a winter trend count. The objective is to maintain 6,000 to 7,000 wintering elk in the herd unit with a recreational management strategy. Annual trend counts are conducted each January to assess the population. The objective was last reviewed in 2012.

The Wiggins Fork elk herd occupies the upper Wind River drainage west of the Wind River Reservation (WRR). There is good documentation that elk wintering in the herd unit migrate into a number of other northwest Wyoming elk herd units in the summer and early fall. Given the amount of interchange with neighboring herd units, the number of elk present can vary significantly throughout the hunting season. Seasons structured to reduce the elk population generally need to include antlerless elk harvest after mid-November to allow elk to migrate into the herd unit from neighboring areas.

### **Habitat/Weather**

Over the past year, all of the elk winter range in this herd unit was affected by severe drought. Precipitation was low enough that virtually no herbaceous forage grew on winter ranges in 2012. Vegetation monitoring transects revealed forage production to be 50% of 2011 production and approximately 65% of the previous 10 year average. Visual examination of the winter range by field personnel suggests production was significantly lower than recorded for the vegetation transects. There was an unusually high amount of residual forage from the 2011 growing season and it was quite difficult to separate the residual forage during 2012 sampling. The production numbers for 2012 are thus thought to be artificially high due to the inclusion of more residual forage than normal. Regardless, little new forage was available for elk in the 2012/13 winter. It is suspected elk entered winter in below average body condition due to poor forage production on summer range as well.

### **Field/Harvest Data/Population**

The amount of movement between this population and adjacent herd units invalidates the use of a population model. Instead, the objective aims to maintain 6,000 to 7,000 elk on wintering grounds throughout the DAU. Trend counts to estimate the wintering population are conducted each January/February. Trend count numbers declined from 1997 through 2003. From 2004 through 2007, the population appeared to stabilize. Winter count numbers fluctuated year-to-year but did not indicate any consistent population trends. In 2008, personnel counted a significantly higher number of elk (5,504). This was the highest count since 1998. In 2009 and 2010, personnel again counted a significantly greater number of elk; 6,110 and 6,023 respectively (Fig. 1). In 2011 the trend count increased significantly again to 7,039. Following a liberal season in 2012, the trend count declined to 5,768. Trend count data are used to calculate a population estimate for three herd segments with sub-objectives. Personnel assume 80% sightability for both the East Fork and Dunoir/Spring Mtn segments and 70% sightability for the South Dubois segment. Population estimates are thus produced by dividing trend counts for the East Fork and Dunoir/Spring Mountain segments by .8 and the South Dubois segment by .7. Since trend counts can fluctuate dramatically year-to-year, the population objective is based on a three year running average. Averaging the past three years' population estimates yields a 2012, post-season population of approximately 8,100. Despite a significant decline in 2012, the population remains 16% above the upper threshold of the objective.

When the new objective range was set in 2002, The Department set sub-objectives for three segments of the herd. The sub-objectives were set to recognize reasonably well-defined spatial segregation of elk groups wintering in the area. The sub-groups include the East Fork, Dunoir/Spring Mountain, and South Dubois groups. While there is a significant amount of interchange, elk from the three groups tend to segregate themselves on winter range and utilize different spring/fall migration routes. Since elk in the three sub-groups are subjected to different demographic influences, sub-objectives were set for each of the three groups. Table 1 lists the sub-objectives for the elk groups as well as recent trend count numbers for the groups. One of the sub-groups (East Fork) has been below the lower objective threshold for all but one year in the past decade. Two of the sub-groups (Dunoir/Spring Mtn and South Dubois) have been well above the upper objective threshold for the past 4 years. The South Dubois segment has consistently been above objective for the past decade. Liberal seasons on an annual basis provide the opportunity for significantly greater harvest in this herd segment but lack of hunter desire to harvest cow elk in this rugged area precludes greater harvest. Despite the lack of necessary harvest, the population in this segment has remained fairly stable over the past 5 years. In contrast, elk numbers in the Dunoir/Spring Mtn herd segment increased dramatically for a period after 2007. The 2012 hunting season was designed to reduce cow numbers in this herd segment. Whether attributable to the liberal season or lack of immigration, the Dunoir/Spring Mtn segment did decline significantly in 2012.

Between 2006 and 2009, recruitment in this herd unit was well below historic levels (Fig. 2). Despite low recruitment between 2006 and 2009, the number of elk counted still increased. In 2010 and 2011 recruitment increased significantly and likely contributed to some of the trend

count increase. In 2012, the calf/cow ratio declined to 22/100 indicating poor recruitment combined with the low trend count.

Figure 1. Wiggins Fork Elk trend count

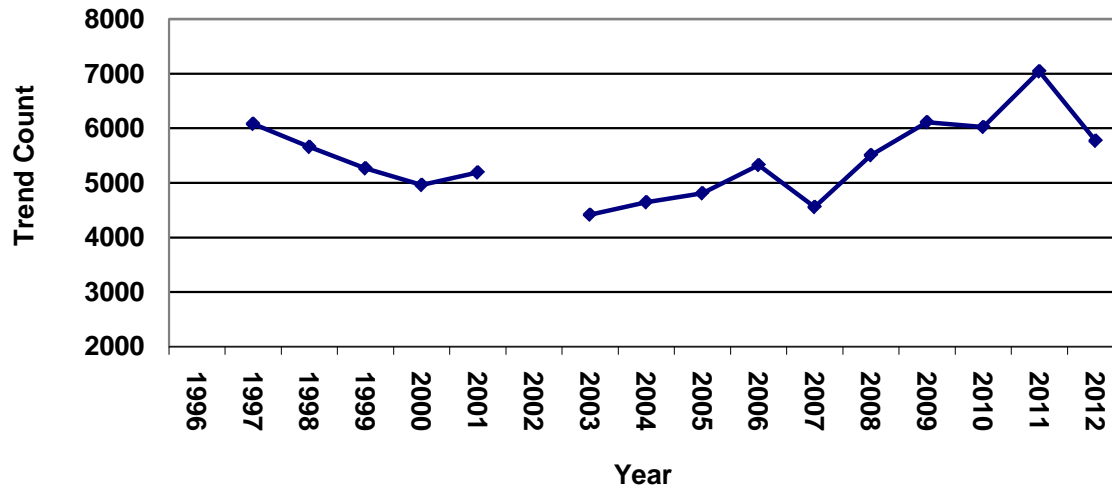
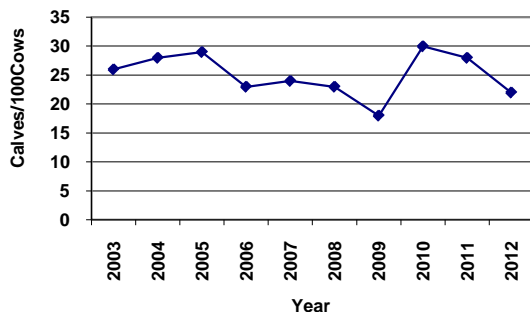


Table 1. Trend count numbers from sub-groups in the Wiggins Fork Elk Herd Unit.

Year	East Fork Objective: 2,400-2,800		Dunoir/Spring Mountain Objective: 2,300-2,700		South Dubois Objective: 1,300-1,500		Wiggins Fork Herd Unit Objective: 6,000-7,000		
	Count	Pop. Estimate	Count	Pop. Estimate	Count	Pop. Estimate	Count	Pop.	3 Year
1998	2154	<b>2693</b>	2457	<b>3071</b>	1046	<b>1494</b>	5657	<b>7258</b>	<b>5454</b>
1999	2180	<b>2725</b>	2109	<b>2636</b>	977	<b>1396</b>	5266	<b>6757</b>	<b>7264</b>
2000	1883	<b>2354</b>	2014	<b>2518</b>	1061	<b>1516</b>	4958	<b>6387</b>	<b>6801</b>
2001	2100	<b>2625</b>	1818	<b>2273</b>	1269	<b>1813</b>	5187	<b>6710</b>	<b>6618</b>
2002	nc		nc		nc		nc		<b>6549</b>
2003	1857	<b>2321</b>	1666	<b>2083</b>	895	<b>1279</b>	4418	<b>5682</b>	<b>6196</b>
2004	1832	<b>2290</b>	1601	<b>2001</b>	1211	<b>1730</b>	4644	<b>6021</b>	<b>5852</b>
2005	1669	<b>2086</b>	1807	<b>2259</b>	1331	<b>1901</b>	4807	<b>6246</b>	<b>5983</b>
2006	1623	<b>2029</b>	2297	<b>2871</b>	1406	<b>2009</b>	5326	<b>6909</b>	<b>6392</b>
2007	1478	<b>1848</b>	1634	<b>2043</b>	1441	<b>2059</b>	4553	<b>5949</b>	<b>6368</b>
2008	1294	<b>1618</b>	2620	<b>3275</b>	1590	<b>2271</b>	5504	<b>7164</b>	<b>6674</b>
2009	1457	<b>1821</b>	3186	<b>3983</b>	1467	<b>2096</b>	6110	<b>7899</b>	<b>7004</b>
2010	1930	<b>2413</b>	2704	<b>3380</b>	1389	<b>1984</b>	6023	<b>7777</b>	<b>7613</b>
2011	1765	<b>2206</b>	3680	<b>4600</b>	1594	<b>2277</b>	7039	<b>9083</b>	<b>8253</b>
2012	1834	<b>2293</b>	2580	<b>3225</b>	1354	<b>1934</b>	5768	<b>7452</b>	<b>8104</b>

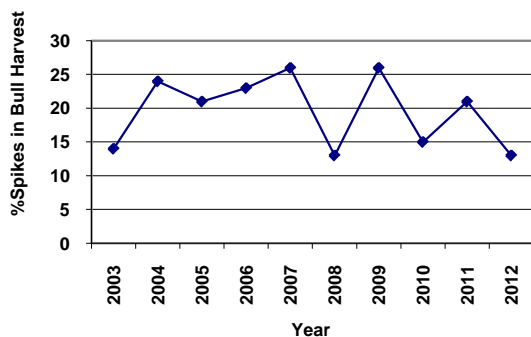


Figure 2. Ten year recruitment history in the Wiggins Fork Elk Herd.



Unfortunately, bull/cow ratio data for this herd are very unreliable. Classification surveys are conducted on the ground throughout the DAU. Since mature bulls generally winter in timber at the fringes of the winter ranges, the number of bulls seen is quite low and mature bull/cow ratios for the herd are not considered accurate. Despite the lack of classification data, personnel suspect the bull/cow ratio in the herd declined concurrently with low recruitment in the mid-2000s. Given low recruitment, there are fewer young bulls to replace the older bulls harvested annually. This fact is illustrated by the percentage of yearling elk harvested each year in the herd unit (Fig. 3). Historical levels of spike harvest were close to 40-50% of the total male harvest. In 2012, 13% of the male harvest was yearling bulls. Although the spike percentage in the harvest was low in 2012, the total number of male elk killed was over 600 and was the highest in the past decade. Increased bull availability could be tied to better recruitment in 2010 and 2011 and is indicative of a population increase.

Figure 3. Percentage of yearling elk in the total, male elk harvest for the Wiggins Fork Elk Herd.



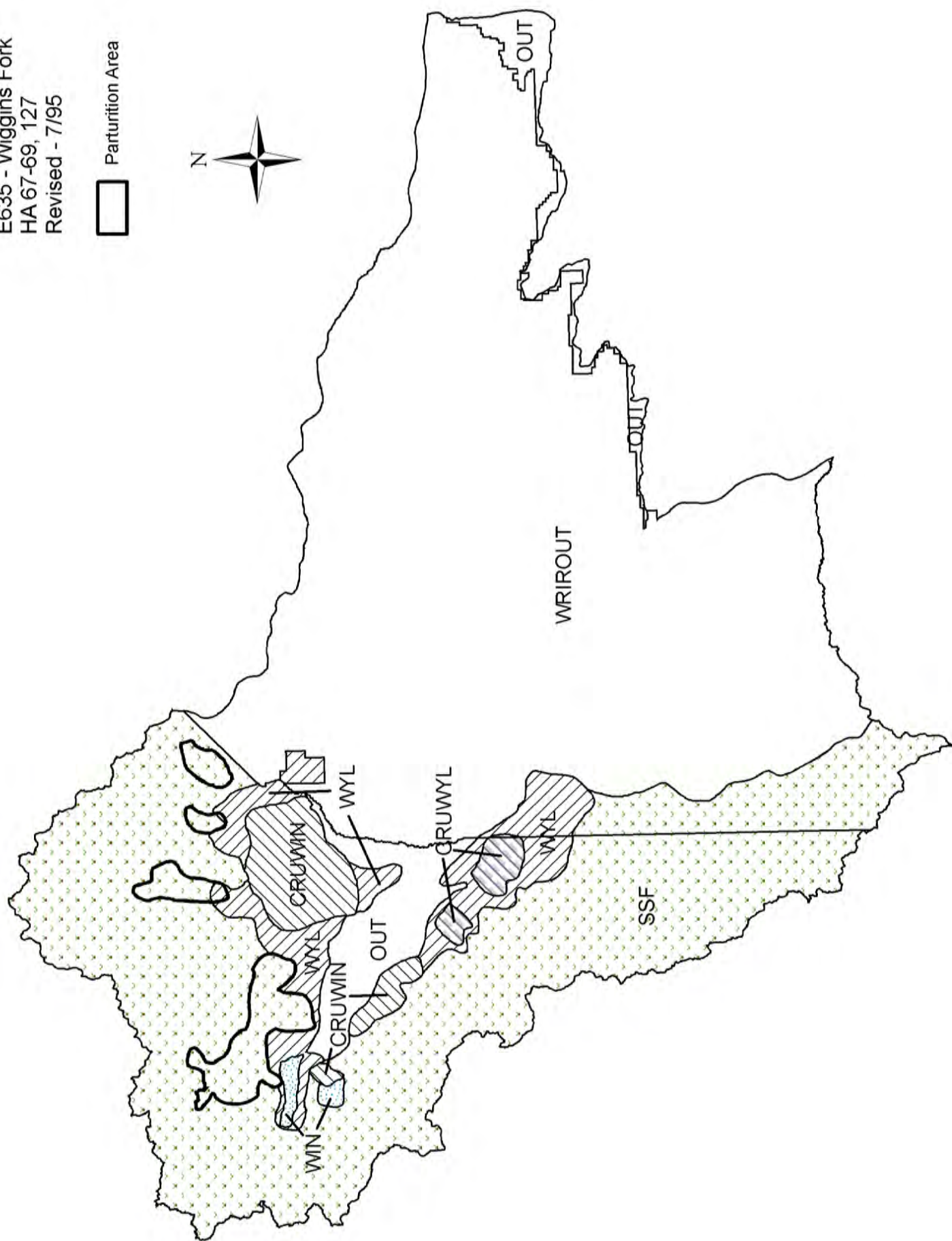
### Management Summary

Despite the significant decline in the 2012 trend count, the Wiggins Fork elk population remains above the upper end of the objective range set in 2012. The 2012 season was quite liberal and appears to have succeeded in reducing the elk population. The 2013 season is designed to reduce hunting pressure significantly but further reduce the population to objective. In particular, the number of Type 6 licenses will be reduced by 300 to lighten harvest pressure on the

Dunoir/Spring Mtn segment that saw the largest trend count decline in 2012. Type 4 license numbers will increase by 250, but 400 Type 5 licenses will be eliminated since two full price antlerless license types are deemed unnecessary given the desired harvest level for 2013. Given low recruitment in 2012, the 2013 season should reduce elk numbers and the population should be at objective in 2013.

E635 - Wiggins Fork  
 HA 67-69, 127  
 Revised - 7/95

 Parturition Area





## 2012 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2012 - 5/31/2013

HERD: EL637 - SOUTH WIND RIVER

HUNT AREAS: 25, 27-28, 99

PREPARED BY: STAN HARTER

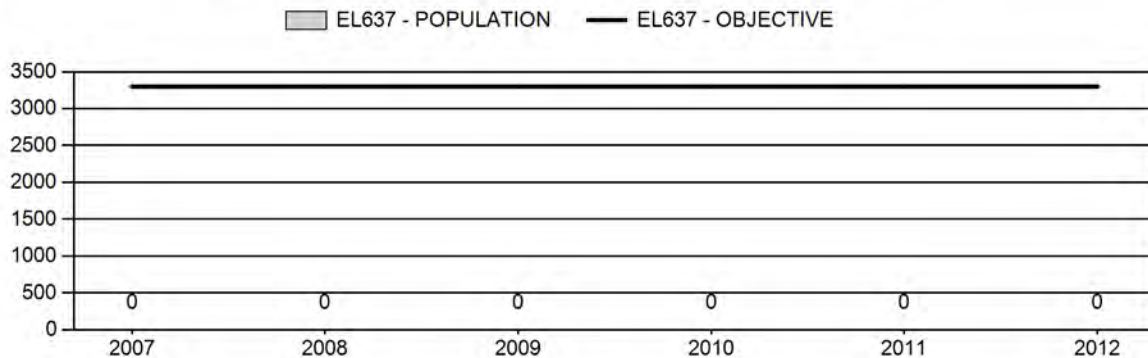
	<u>2007 - 2011 Average</u>	<u>2012</u>	<u>2013 Proposed</u>
Population:	0	N/A	N/A
Harvest:	682	623	700
Hunters:	2,197	1,837	1,900
Hunter Success:	31%	34%	37 %
Active Licenses:	2,296	1,900	2,000
Active License Percent:	30%	33%	35 %
Recreation Days:	16,329	13,836	15,000
Days Per Animal:	23.9	22.2	21.4
Males per 100 Females	24	26	
Juveniles per 100 Females	31	33	

Population Objective:	3,300
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	0
Model Date:	None

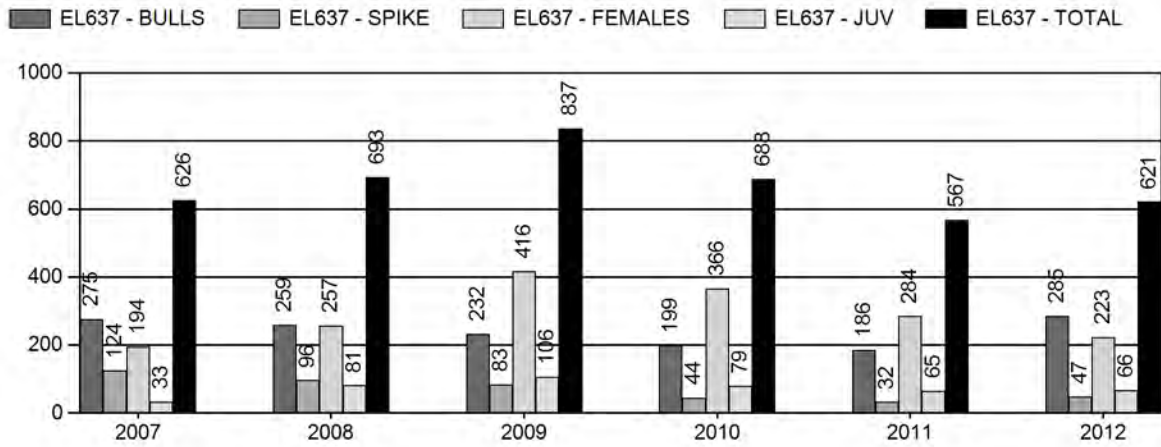
**Proposed harvest rates (percent of pre-season estimate for each sex/age group):**

	<u>JCR Year</u>	<u>Proposed</u>
Females $\geq$ 1 year old:	0%	0%
Males $\geq$ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	0%	0%

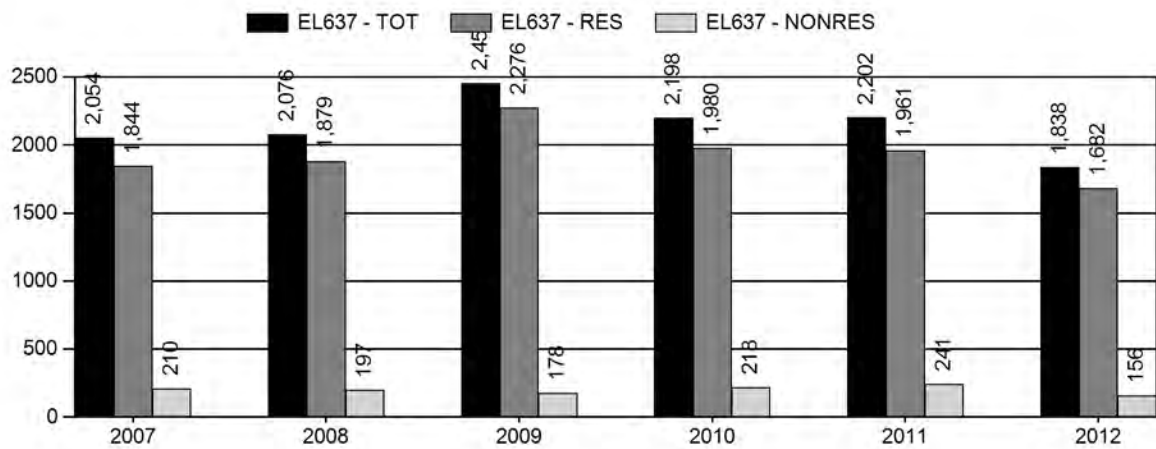
## Population Size - Postseason



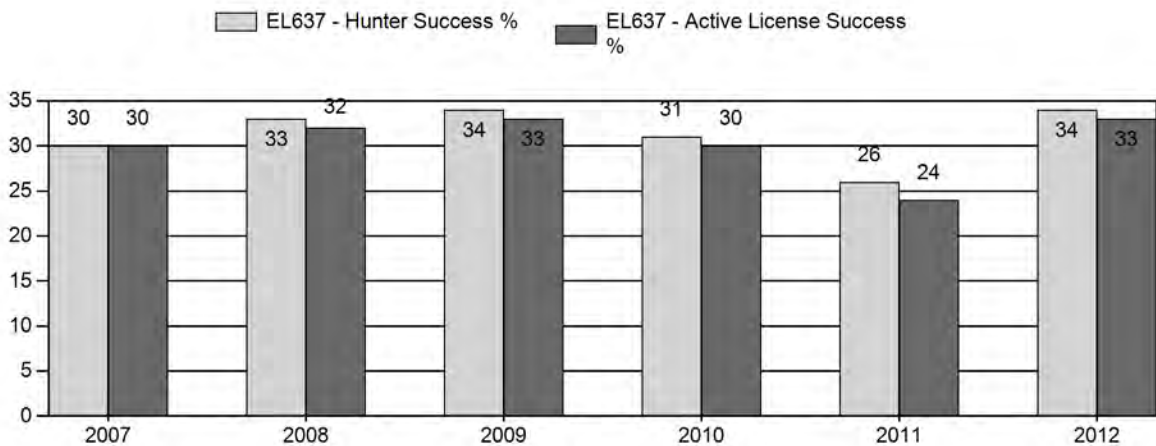
# Harvest



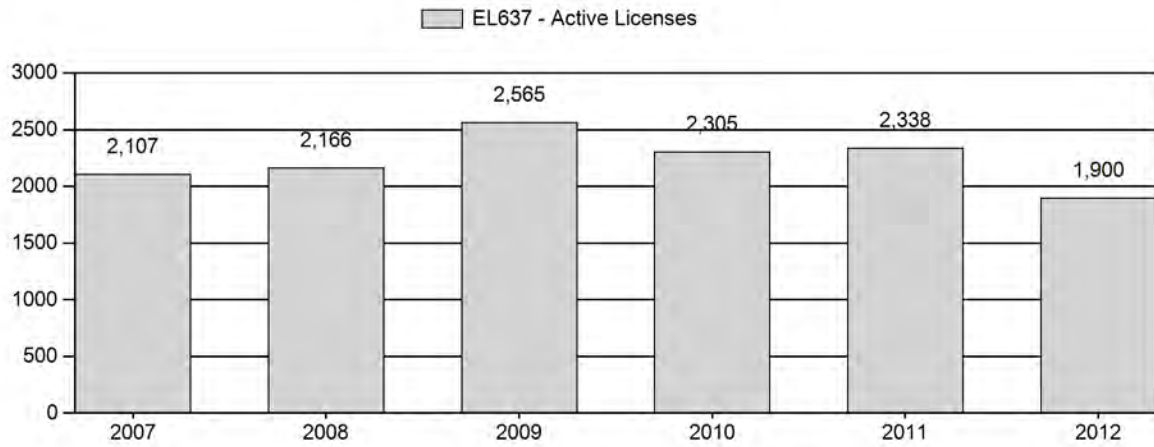
# Number of Hunters



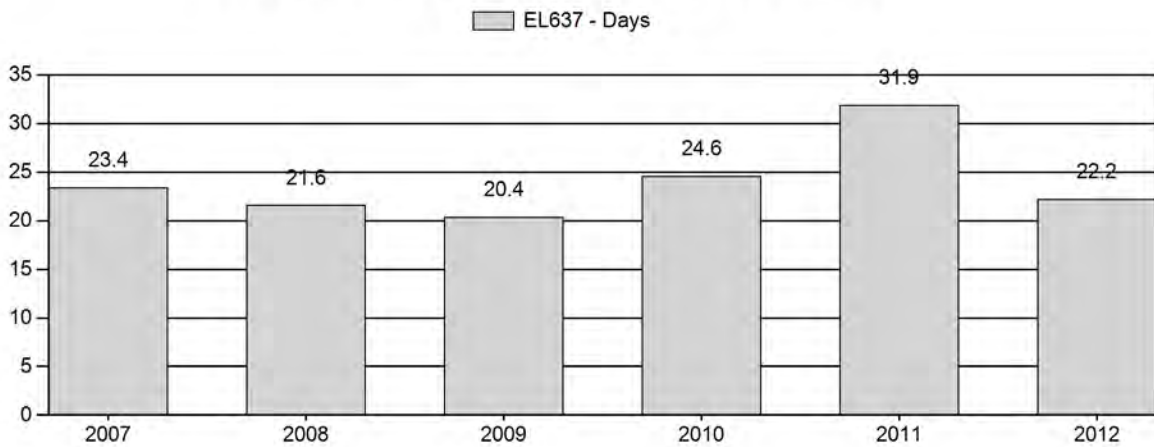
# Harvest Success



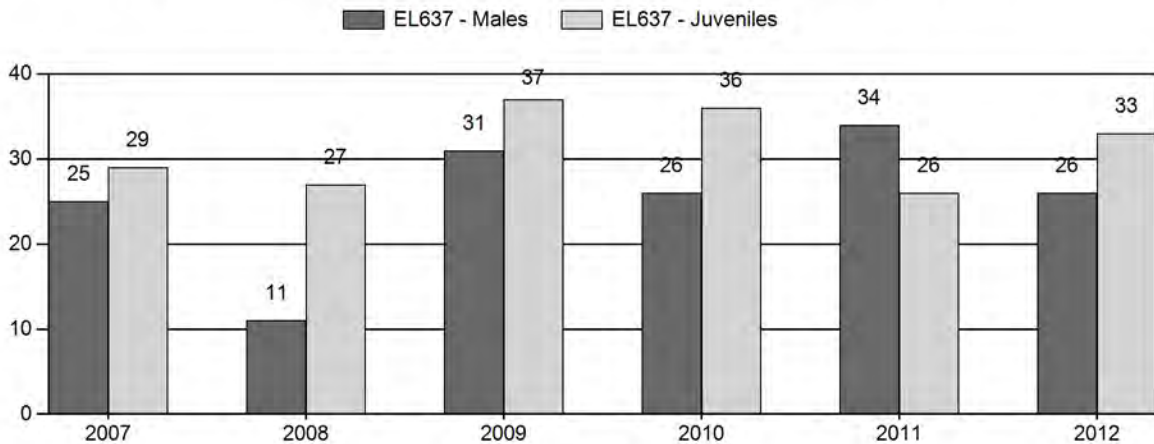
## Active Licenses



## Days per Animal Harvested



## Postseason Animals per 100 Females



## 2007 - 2012 Postseason Classification Summary

for Elk Herd EL637 - SOUTH WIND RIVER

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot Cls	Cls Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			Ylg	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2007	0	186	212	398	16%	1,622	65%	465	19%	2,485	338	11	13	25	± 1	29	± 1	23
2008	0	114	121	235	8%	2,204	73%	597	20%	3,036	290	5	5	11	± 0	27	± 1	24
2009	0	193	263	456	19%	1,460	60%	537	22%	2,453	491	13	18	31	± 1	37	± 1	28
2010	0	174	231	405	16%	1,554	62%	563	22%	2,522	460	11	15	26	± 1	36	± 1	29
2011	0	179	299	478	21%	1,397	62%	365	16%	2,240	0	13	21	34	± 2	26	± 1	19
2012	0	183	356	539	16%	2,066	63%	691	21%	3,296	0	9	17	26	± 1	33	± 1	27



**2013 HUNTING SEASONS**  
**South Wind River Elk Herd Unit (EL 637)**

HUNT AREA	TYPE	Season Dates		Limited Quota	LIMITATIONS
		OPENS	CLOSES		
25, 27	1	Oct. 1 Nov. 1	Oct. 31 Nov. 20	200	Limited quota licenses; any elk Unused Area 25, 27 Type 1 licenses valid for antlerless elk
25	4	Oct. 15	Nov. 20	200	Limited quota licenses; antlerless elk
25	6	Nov. 1	Nov. 20	200	Limited quota licenses; cow or calf
27	4	Oct. 1	Nov. 20	100	Limited quota licenses; antlerless elk
28		Oct. 1	Oct. 22		General license; antlered elk
	4	Nov. 1	Nov. 20	300	Limited quota licenses; antlerless elk
99	1	Oct. 1 Nov. 1	Oct. 31 Nov. 20	200	Limited quota licenses; any elk Unused Area 99 Type 1 licenses valid for antlerless elk
	4	Oct. 1	Nov. 20	225	Limited quota licenses; antlerless elk
<b>Archery</b>					
28		Sept. 1	Sept. 30		General License; Any elk Limited quota; Refer to Section 3 of this Chapter
25,27,99		Sept. 1	Sept. 30		Refer to Section 3 of this Chapter

Hunt Area	Type	Change from 2012
27	4	+100
28	4	+ 100
	6	-50
	4	+ 200
	6	- 50
<b>Total EL637</b>		<b>+150</b>

**MANAGEMENT EVALUATION**

**Current Management Objective: 3,300**

**Management Strategy: Recreation ( $\leq 30$  bulls/100 cows)**

**2012 Post-season Population Estimate: No Model**

**2013 Post-season Population Estimate: No Model**

**Herd Unit Issues**

Efforts to model this population using spreadsheet models have been futile, with population estimates being produced 2-4 times the number observed which seems extremely unrealistic. The intensity of elk movement between South Wind River and surrounding herd units has been in question for many years. Recent GPS collar data available from elk captured on native winter ranges in Hunt Area 99 and on feedgrounds in adjacent Hunt Area 98 have shown moderate to major interchange occurs between those 2 hunt areas/herd units, and within the current South Wind River Herd Unit. An earlier elk GPS collar study in the Jack Morrow Hills in HA 100 showed some movement occurs between Hunt Areas 100 and 25. Additional and often separate

interchange is known to occur between HA 25 and the Cyclone Rim portion of HA 100, as well as movement between these 2 hunt areas and Hunt Area 24 in the Green Mountain Herd Unit. The extent of this interchange demonstrates our inability to accurately define herd units, and makes modeling impossible. Data from South Wind River and several other neighboring herd units were experimentally combined using spreadsheet modeling in summer 2012, with no clear herd unit combination evident. Regardless of the results of these modeling efforts, we will be evaluating the current population objective in 2014, and will consider using an “alternative” objective such as post-season trend counts. Potential combinations of herd units will be considered, as well, in light of the above mentioned interchange. Regardless of actual population size, we recognize this population remains above the current objective and propose to continue persistent antlerless harvest in an attempt to reduce herd size.

### **Weather/Habitat**

Weather conditions have been variable for several years, with crusted snow conditions in winter 2009-10, followed by cold, wet, and snowy conditions occurring well into June 2010. Winter 2010-11 seemed to duplicate these. Drought conditions have been extreme to exceptional for the past year, beginning with minimal snowfall in winter 2011-12 and continuing with almost no precipitation during spring and summer 2012. This resulted in an almost complete lack of herbaceous or browse forage production across the herd unit.

By early April, drought was expected to worsen through 2013. However, a series of several late winter/early spring snow storms produced over 50” of snow through early May (the equivalent of nearly 4” precipitation) in Lander, with more snow reported in Sinks Canyon (up to 78”) and other locations along the east slope of the Wind River Range. These storms have proven extremely helpful in lessening the effects of drought, yet they only helped change the drought status from Extreme to Severe. Unless more precipitation is received in May and June, little habitat improvement (especially shrubs, aspen, and riparian) will be achieved. Additionally, the heaviest precipitation was received in the Lander Foothills, with areas such as South Pass and the Antelope Hills receiving very little new snow in April.

### **Field Data**

Late-February flights resulted in a total of 3,296 elk being classified using a Bell Jet Ranger 206 helicopter in Areas 25, 27, and 28, with personnel from the Pinedale Region covering Area 99 in mid-February with a Bell 47 Soloy helicopter. Digital photographs and high-definition video were used to assist observers in aerial classification efforts. We believe we missed a few groups of elk in Area 28 since lighter snow cover allowed elk to travel well into summer/transitional habitats on the Shoshone National Forest. Yet, a record 1,871 elk were observed in Area 28, including nearly 1,000 on Red Canyon WHMA, some of which may have crossed Highway 28 from Area 25. Fewer elk were classified in Area 25 this year, with almost no elk in the Twin Creek drainage where over 900 have been observed in recent years. More than 400 elk were observed south of the Sweetwater River, the most in several years. Elk in Areas 27 and 99 were scattered this winter, with more elk observed in these 2 areas than normal. The observed post-season calf/cow ratio of 33J/100F and bull ratio of 26M/100F were about average.

### **Harvest Data**

Although above objective, complaints from hunters about difficulty finding and harvesting elk have, in part, led to adjustments to antlerless hunting seasons in Area 28 and to opening dates in Area 25 to reduce hunter crowding. Female harvest dropped in 2012 to the lowest level in 5 years, partly due to these changes and also due to open weather not forcing elk groups into areas readily accessible to hunters. Yet, bull harvest increased more than 50% over that in 2011. Based on harvest survey results, total harvest increased 10% in 2012, but remained below average.

### **Management Summary**

A public meeting was held in Lander on December 1, 2011 to gather input about hunting seasons and hunter satisfaction. Several concerns were voiced at this meeting, with low elk numbers and over-crowded hunting conditions creating low quality hunts being among the top concerns. To address these concerns, many of which had been voiced earlier during hunting seasons in 2010 and 2011, and during last year's season setting meetings, and to continue managing this herd unit toward objective, we made the following changes in 2012.

1. Antlered Only hunting for the General season in Area 28 (consistent with 2012 application booklet)
2. Reduction of late season antlerless and cow/calf licenses in Area 28, and shift of antlerless and cow/calf license numbers in Area 25 (along with a slight overall reduction).
3. Change of opening dates for antlerless and cow/calf seasons in Areas 25 to October 15 and in Area 28 to November 1 (consistent with 2012 application booklet).

These changes were not apparently successful in increasing female harvest, but may have contributed to increased bull harvest. Clearly, with the 2012 classification total of only 4 less than the current objective, increasing harvest is paramount. Still, hunters have expressed concerns about not having enough elk available during hunting seasons and no complaints about too many elk have been heard.

For 2013 seasons, we made a few changes to again address concerns about over-crowding and increase female harvest. We added a new antlerless season for Area 27 not tied to Area 25, with 100 Type 4 licenses valid only in Area 27. To increase female harvest in Area 25, we shifted the opening date in application information for Type 6 licenses to November 1 to create a 3<sup>rd</sup> opening date and reduce crowding for the Type 1 and Type 4 seasons. This should also force hunters to harvest elk in November. We expect the 2013 seasons outlined above should result in a harvest of at least 700 elk with an increase in female take. If calf recruitment is near average, this harvest should result in a reduction of the population following the 2013 season.

South Wind River Elk (EL637)

HA 25, 27, 28, 99

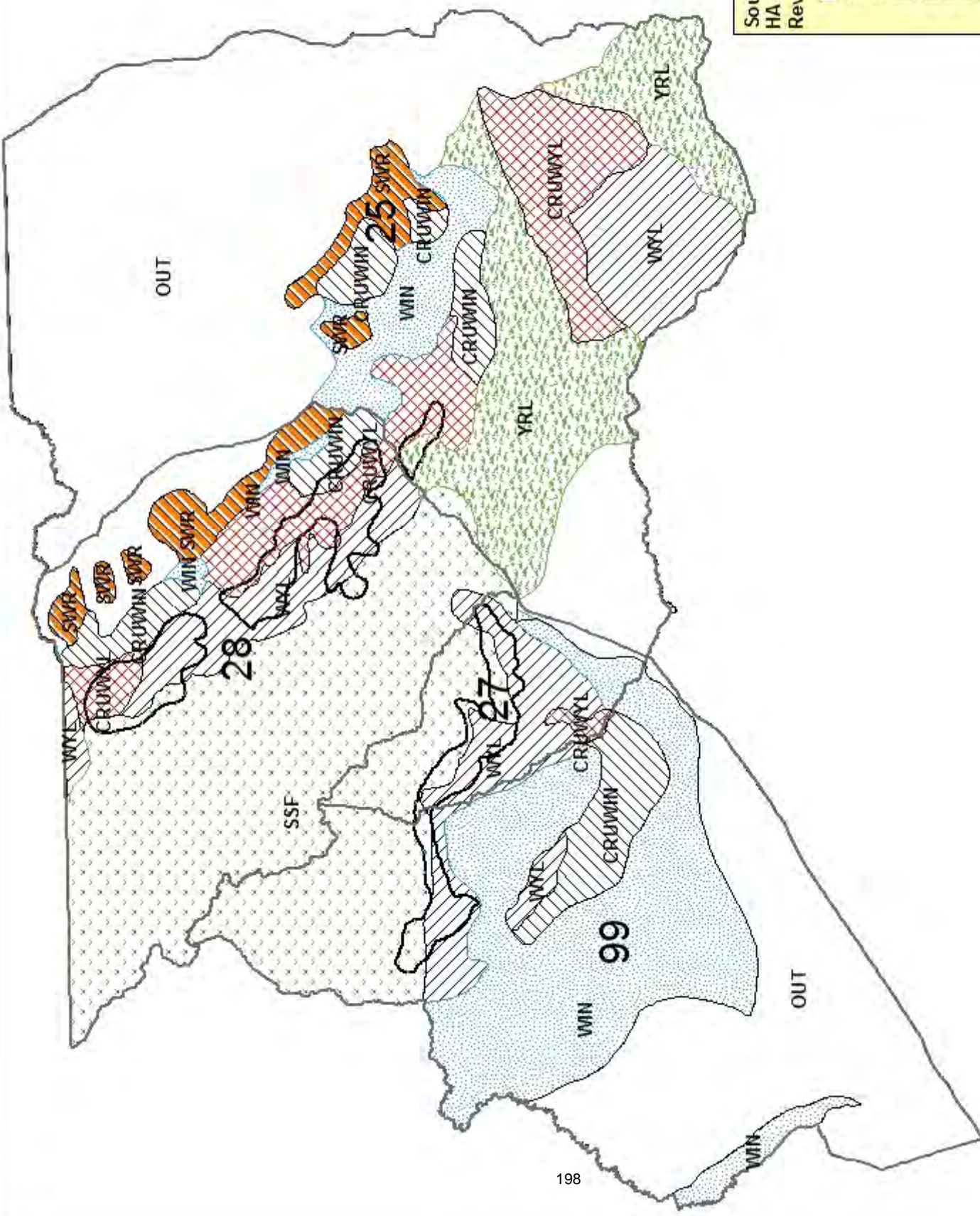
Revised September 2011

Elk Hunt Area Boundaries

Elk Seasonal Range

RANGE

CRUWIN	CRUWYL	OUT	SSF	SWR	WIN	WYL	YRL	Parturition
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## 2012 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2012 - 5/31/2013

HERD: EL638 - GREEN MOUNTAIN

HUNT AREAS: 24, 128

PREPARED BY: STAN HARTER

	<u>2007 - 2011 Average</u>	<u>2012</u>	<u>2013 Proposed</u>
Population:	0	N/A	N/A
Harvest:	254	332	350
Hunters:	622	714	750
Hunter Success:	41%	46%	47 %
Active Licenses:	622	727	760
Active License Percent:	41%	46%	46 %
Recreation Days:	2,938	4,006	4,200
Days Per Animal:	11.6	12.1	12
Males per 100 Females	30	48	
Juveniles per 100 Females	38	47	

Population Objective:	500
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	10
Model Date:	None

**Proposed harvest rates (percent of pre-season estimate for each sex/age group):**

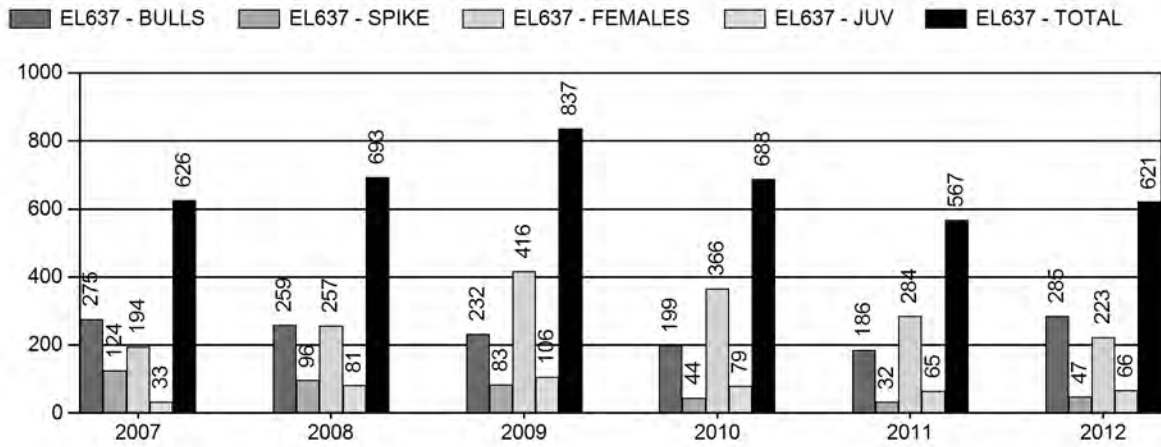
	<u>JCR Year</u>	<u>Proposed</u>
Females $\geq$ 1 year old:	0%	0%
Males $\geq$ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	0%	0%

## Population Size - Postseason

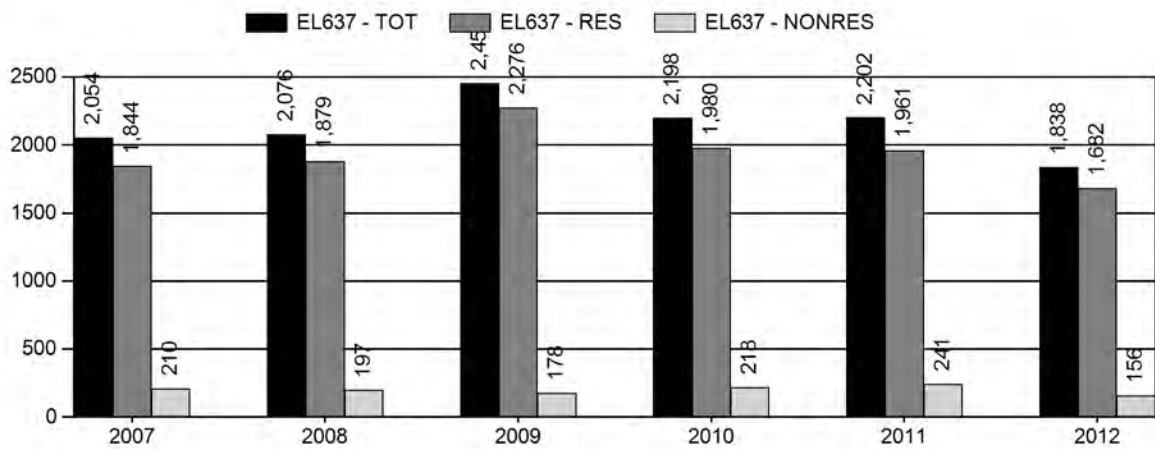




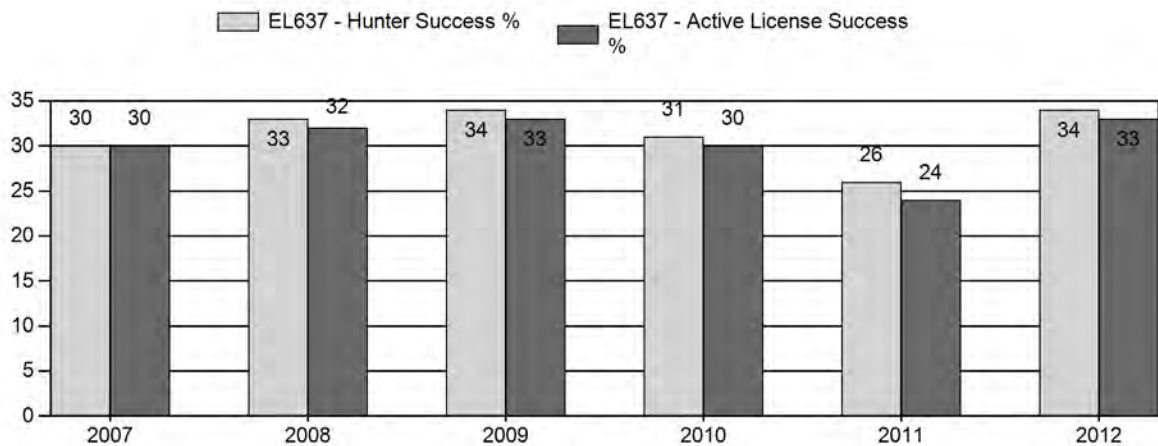
# Harvest



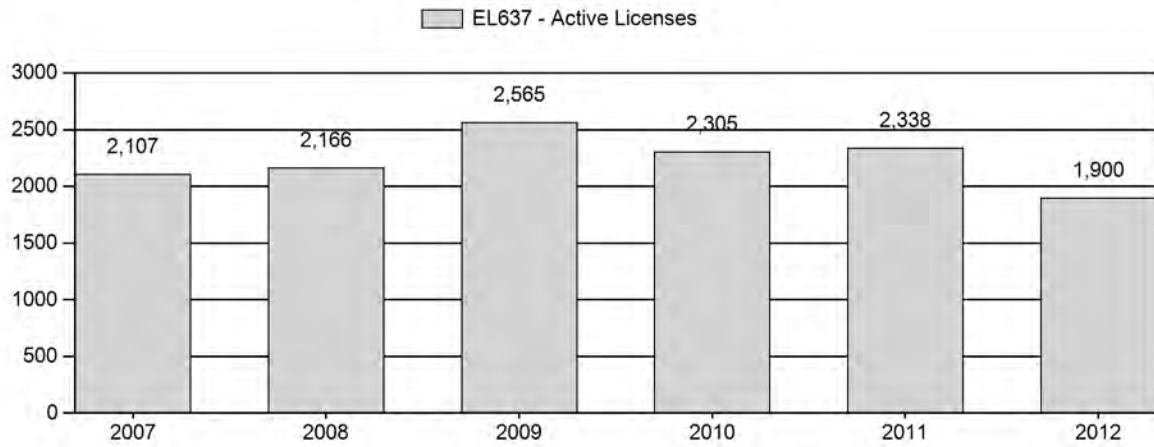
# Number of Hunters



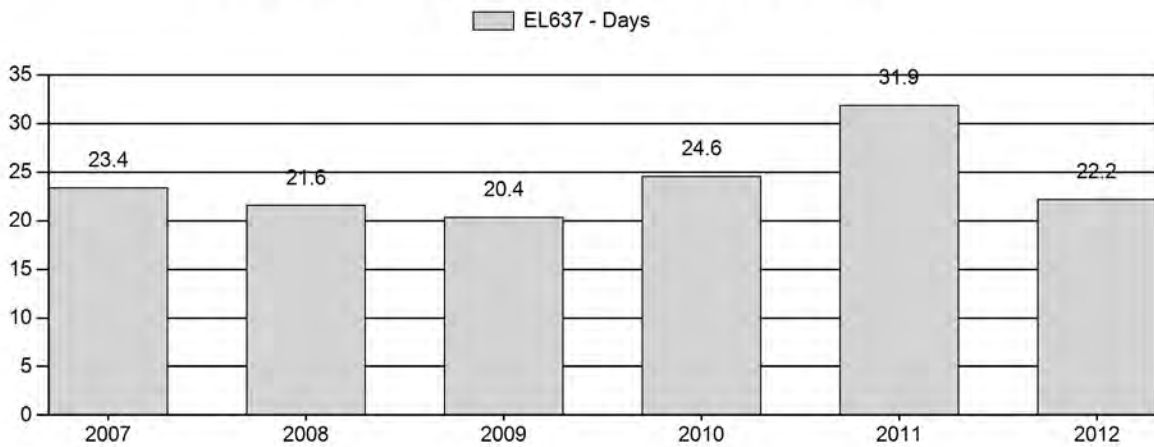
# Harvest Success



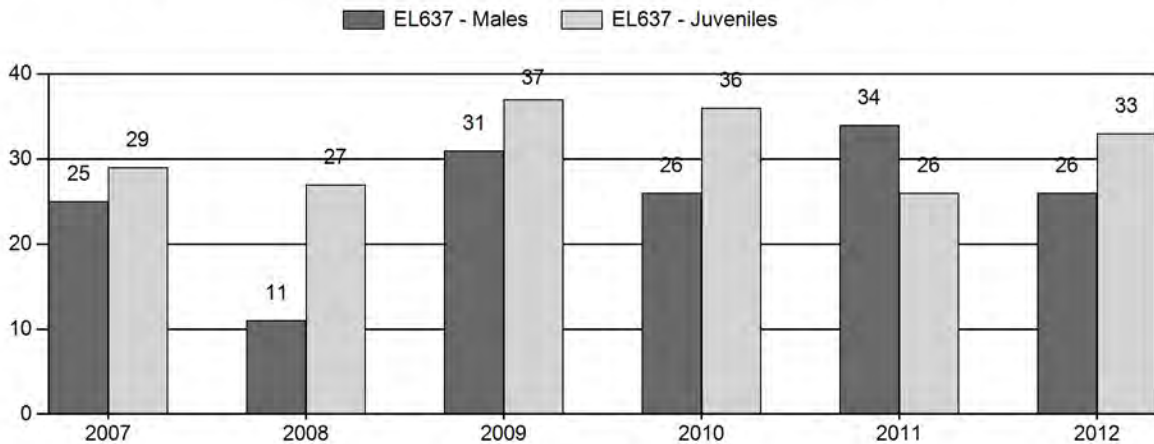
## Active Licenses



## Days per Animal Harvested



## Postseason Animals per 100 Females



## 2007 - 2012 Postseason Classification Summary

for Elk Herd EL638 - GREEN MOUNTAIN

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot Cls	Cls Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			Ylg	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2007	0	23	22	45	9%	327	68%	109	23%	481	0	7	7	14	± 0	33	± 0	29
2008	0	45	46	91	15%	374	61%	151	25%	616	0	12	12	24	± 0	40	± 0	32
2009	0	55	96	151	19%	503	63%	149	19%	803	0	11	19	30	± 0	30	± 0	23
2010	0	61	62	123	18%	401	60%	141	21%	665	0	15	15	31	± 0	35	± 0	27
2011	0	47	127	174	26%	313	47%	176	27%	663	0	15	41	56	± 0	56	± 0	36
2012	0	49	111	160	24%	336	51%	158	24%	654	0	15	33	48	± 0	47	± 0	32



**2013 HUNTING SEASONS**  
**Green Mountain Elk Herd Unit (EL 638)**

HUNT AREA	TYPE	Season Dates		Quota	LIMITATIONS
		OPENS	CLOSES		
24	1	Oct. 1	Oct. 14	225	Limited quota licenses; any elk
	4	Oct. 1	Oct. 14	50	Limited quota licenses; antlerless elk
	6	Aug. 17	Aug. 31	100	Limited quota licenses; cow or calf
24, 128	5	Nov. 1	Nov. 30	200	Limited quota licenses; antlerless elk
128		Oct. 1	Oct. 14		General license; any elk
Archery 24, 128		Sept. 1	Sept. 30		Refer to Section 3 of this Chapter

Hunt Area	Type	Change from 2012
24	1	+25
	1	+25
<b>Total EL638</b>		<b>+25</b>

### **MANAGEMENT EVALUATION**

**Current Management Objective: 500**

**Management Strategy: Recreation ( $\leq 30$  bulls/100 cows)**

**2012 Post-season Population Estimate: No Model**

**2013 Post-season Population Estimate: No Model**

### **Herd Unit Issues/Population**

Efforts to model this population have been futile, with both POP-II and spreadsheet models producing population estimates nearly 4 times the number observed which seems extremely unrealistic. The intensity of elk movement between Green Mountain and surrounding herd units has been in question for many years. Wildlife biologists in Lander, Casper, Laramie and Green River regions are examining options for elk management in several herds that have experienced similar management issues. Interchange is known to occur between HA 24 and the Cyclone Rim portion of HA 100, as well as movement between these 2 hunt areas and Hunt Area 25 in the South Wind River Herd Unit. Similarly, known interchange occurs between HA 128 and the Rattlesnake Herd Unit. The extent of this interchange demonstrates our inability to accurately define herd units, and makes modeling impossible.

Data from Green Mountain and several other herd units were experimentally combined using spreadsheet modeling in summer 2012, with no clear herd unit combination determined. Regardless of the results of these modeling efforts, we will be evaluating the current population objective in 2014, and will consider using an “alternative” objective such as post-season trend counts. Potential combinations of herd units will be considered, as well, in light of the above mentioned interchange. Regardless of actual population size, we recognize the Green Mountain elk herd remains above the current objective and propose to continue persistent antlerless harvest in an attempt to reduce herd size.

### **Weather/Habitat**

Weather conditions have been variable for several years, with crusted snow conditions in winter 2009-10, followed by cold, wet, and snowy conditions occurring well into June 2010. Winter 2010-11 seemed to duplicate these conditions with crusted snow, followed by cold, wet spring weather impacting newborn fawns. Drought conditions have been extreme to exceptional for the past year, beginning with minimal snowfall in winter 2011-12 and continuing with almost no precipitation during spring and summer 2012. This resulted in an almost complete lack of herbaceous or browse forage production across the herd unit.

By early April, drought was expected to worsen through 2013. However, a series of late winter/early spring snow storms produced snow through early May in Jeffrey City, with more at higher elevations such as Green Mountain and Beaver Rim. These storms have proven helpful in lessening the effects of drought, yet they only helped change the drought status from Extreme to Severe. Additionally, the snow/precipitation amounts were significantly lower than in Lander, where over 58" of snow was received since March 1, 2013. Unless more precipitation is received in May and June, little habitat improvement (especially shrubs, aspen, and riparian) will be achieved.

### **Field Data**

Classifications were attempted in mid-December 2012 using a Bell 206 Jet Ranger helicopter while classifying mule deer. However, due to an almost complete lack of snow cover outside of timbered areas, few elk were observed in traditional wintering areas. A mid-February flight resulted in better detection of elk, but it still seemed elk groups were missed. The reported classification data include groups from both surveys that were widely separated from each other spatially and overlap between time periods seemed unlikely. The resulting post-season calf ratio declined to 47J/100F and the observed bull/cow ratio was 48M/100F, with both ratios well above average. Some of the increase in these ratios appears to be related to fewer cows in the classification than in recent years, indicating our efforts to increase female harvest have been increasingly successful. This is supported by the 2012 harvest survey indicating about 50 more cows were harvested in 2012 than the recent average.

### **Harvest Data**

Harvest survey results indicate a near record 332 elk were harvested in 2012, with the above indicated increase in cow harvest being similar for adult bulls (up 40 from 2011). Hunter success was about average in Area 24, with 62% for the Type 1 any elk season and 46% for Type 5 antlerless elk hunters.

A number of changes were made to the 2012 season structure, after numerous complaints about hunter over-crowding were heard during seasons and at public meetings in 2011 and 2012. We shifted 75 Area 24 Type 4 licenses (leaving 50) to a Type 6 season in late-August (100 total). These Type 6 hunters enjoyed 59% success, with days per harvest at 7.2 days being the lowest of all license types in 2012. This season preceded archery season, and we heard complaints from archery hunters and others in October and November seasons. Yet, with average archery harvest, increased bull harvest and increases in female harvest in November, only the Type 4 hunters saw real declines in success rates (29%). In addition, we reduced the number of Area 24 Type 5 licenses back to 200, but allowed them to be used the entire month of November in both Areas 24 and 128. Access to Green and Crooks Mountains was excellent in November 2012, with almost no snow related travel problems. With more days to hunt and open hunting conditions, more elk were harvested with fewer hunters. Conditions didn't compel hunters to hunt in Area 128, with only 4 people reporting using that area and none harvested elk there.

### **Management Summary**

To provide additional hunter opportunity for bulls in Area 24, we added 25 Type 1 any elk licenses in 2013. Despite several comments received with harvest survey and during seasons, the 2012 season structure was quite successful, and data do not support concerns the August cow/calf hunt caused problems for hunters in later seasons. Therefore, all other seasons are remain as they were in 2012. Anticipated harvest levels should continue to reduce the population, and maintain bull/cow ratios at the upper end of recreational management levels. The expected 2013 harvest should consist of approximately 360 elk (140 bulls, 200 cows, and 20 calves), mostly from Area 24.

Green Mountain Elk (EL638)  
HA 24, 128  
Revised January 2012

ELK Hunt Area Boundaries

**Elk Seasonal Range**

**RANGE**

CRUWYL

OUT

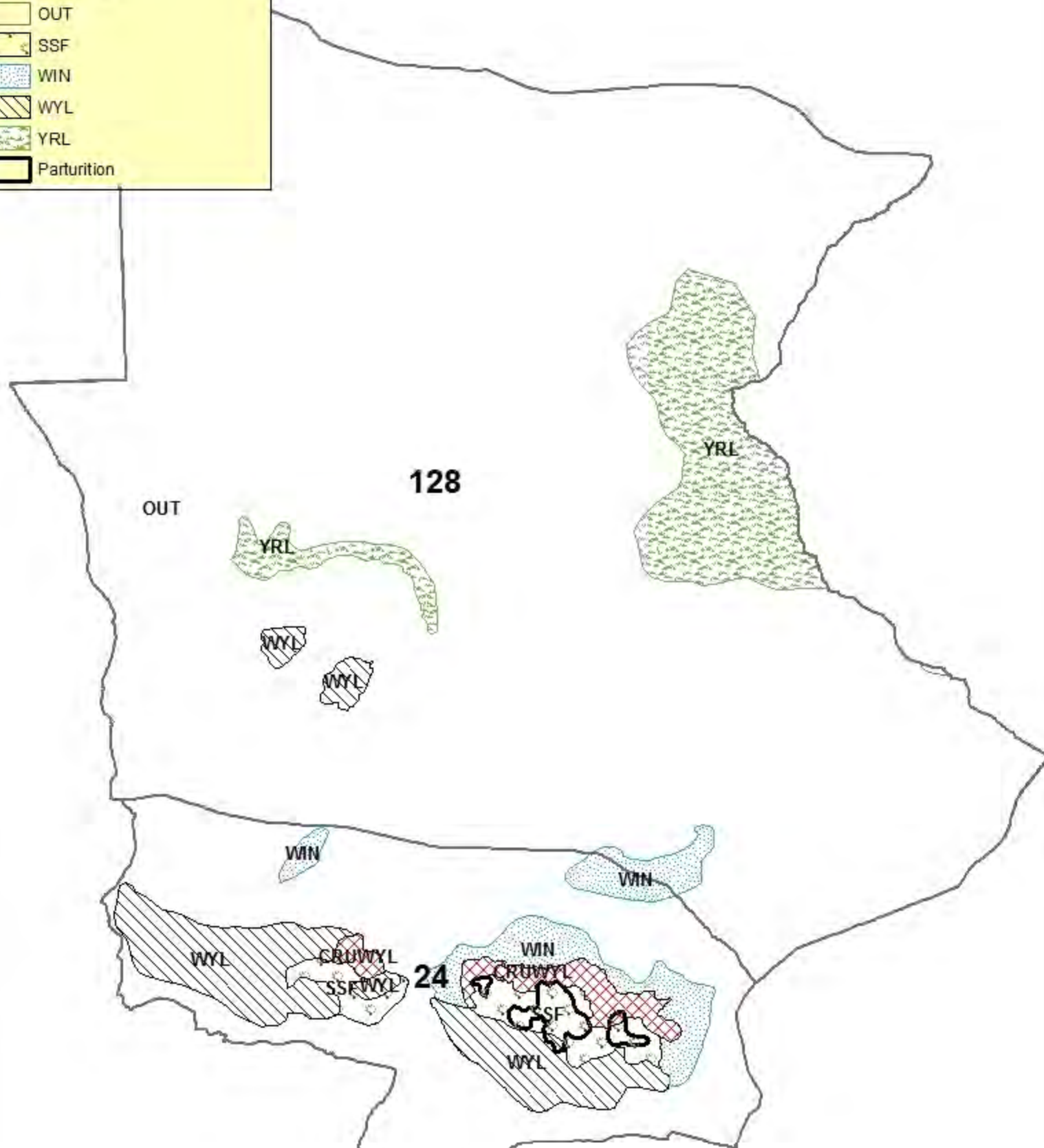
SSF

WIN

WYL

YRL

Parturition



## 2012 - JCR Evaluation Form

SPECIES: Elk  
 HERD: EL639 - FERRIS  
 HUNT AREAS: 22, 111

PERIOD: 6/1/2012 - 5/31/2013

PREPARED BY: GREG HIATT

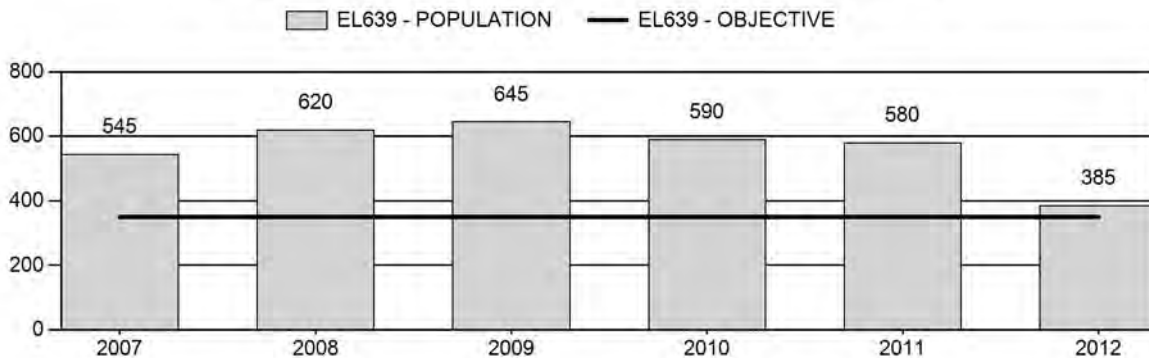
	<u>2007 - 2011 Average</u>	<u>2012</u>	<u>2013 Proposed</u>
Population:	596	385	367
Harvest:	148	173	75
Hunters:	277	337	155
Hunter Success:	53%	51%	48 %
Active Licenses:	283	346	155
Active License Percent:	52%	50%	48 %
Recreation Days:	1,710	2,889	1,350
Days Per Animal:	11.6	16.7	18
Males per 100 Females	58	41	
Juveniles per 100 Females	53	23	

Population Objective: 350  
 Management Strategy: Special  
 Percent population is above (+) or below (-) objective: 10%  
 Number of years population has been + or - objective in recent trend: 18  
 Model Date: None

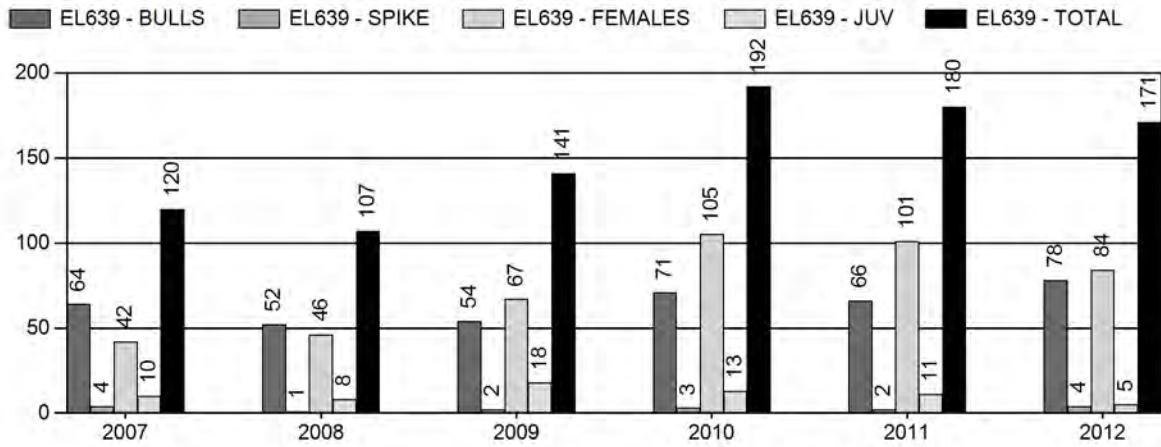
**Proposed harvest rates (percent of pre-season estimate for each sex/age group):**

	<u>JCR Year</u>	<u>Proposed</u>
Females $\geq$ 1 year old:	0%	0%
Males $\geq$ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	-3%	-5%

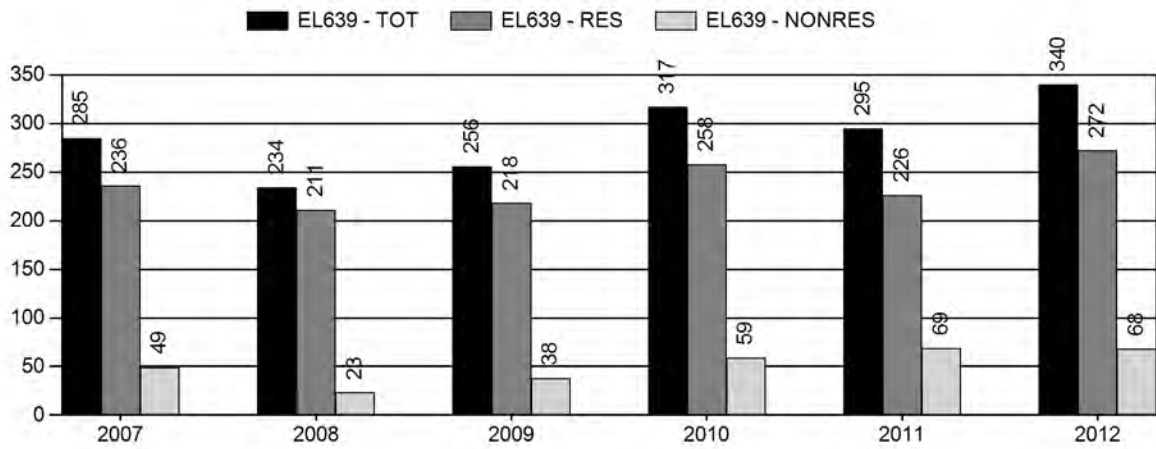
## Population Size - Postseason



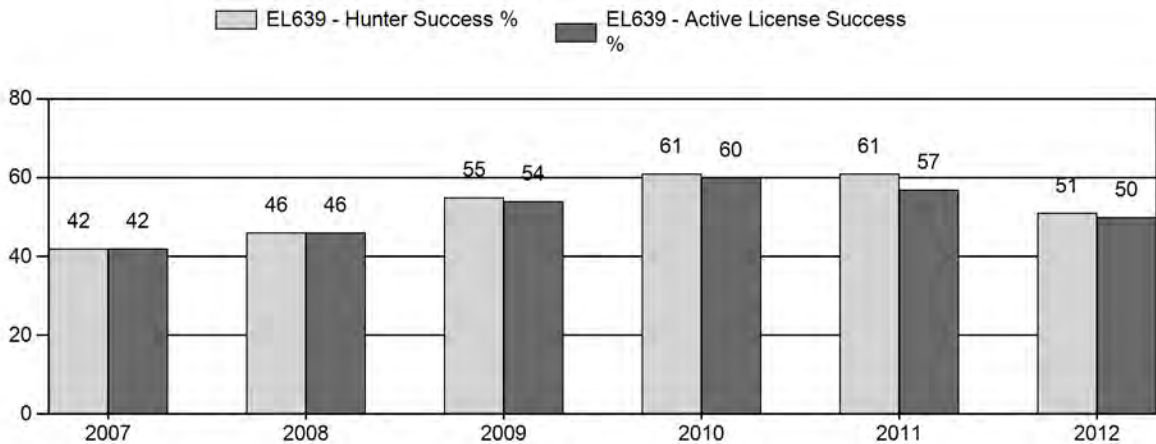
## Harvest



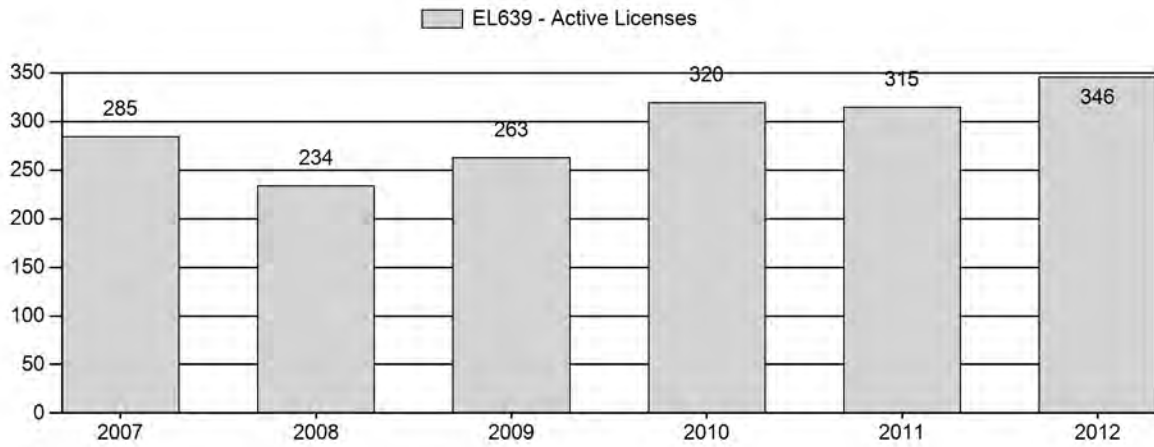
## Number of Hunters



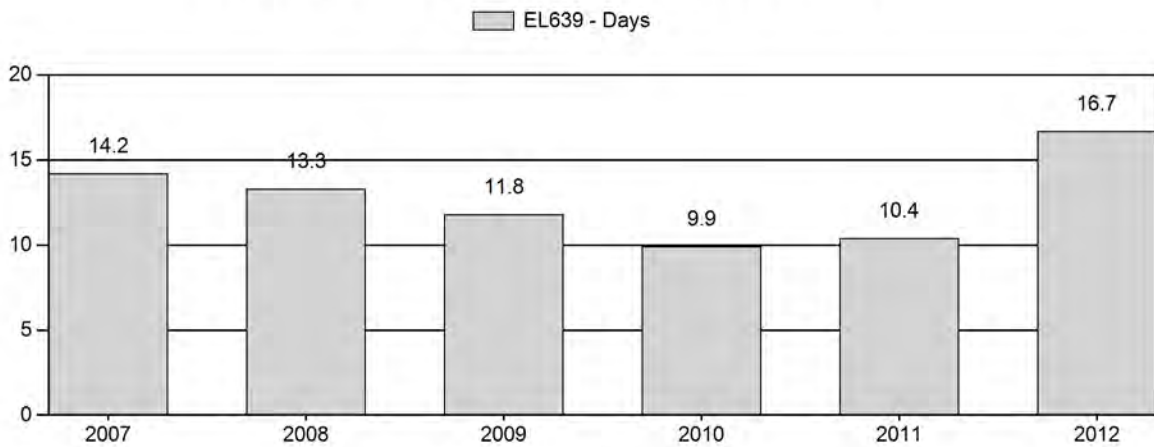
## Harvest Success



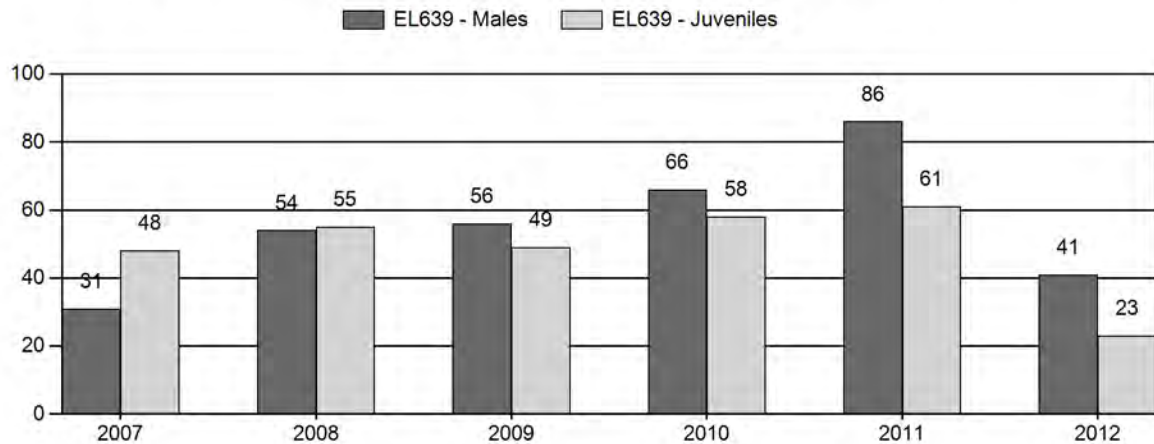
## Active Licenses



## Days per Animal Harvested



## Postseason Animals per 100 Females



## 2007 - 2012 Postseason Classification Summary

for Elk Herd EL639 - FERRIS

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot Cls	Cls Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			Ylng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2007	545	10	33	43	17%	137	56%	66	27%	246	318	7	24	31	± 5	48	± 7	37
2008	620	19	42	61	26%	112	48%	62	26%	235	0	17	38	54	± 0	55	± 0	36
2009	645	56	116	172	27%	305	49%	150	24%	627	0	18	38	56	± 0	49	± 0	31
2010	590	25	53	78	29%	119	45%	69	26%	266	0	21	45	66	± 9	58	± 8	35
2011	580	23	87	110	35%	128	41%	78	25%	316	0	18	68	86	± 10	61	± 8	33
2012	385	25	50	75	25%	182	61%	42	14%	299	0	14	27	41	± 3	23	± 2	16



**2013 HUNTING SEASONS  
FERRIS ELK HERD (EL639)**

<b>Hunt Area</b>	<b>Type</b>	<b>Dates of Seasons</b>		<b>Quota</b>	<b>Limitations</b>
<b>Opens</b>	<b>Closes</b>				
22	1	Oct. 8 Nov. 1	Oct. 31 Jan. 31	25	Limited quota; any elk Unused Area 22 Type 1 licenses valid for antlerless elk
	6	Oct. 8 Nov. 1	Oct. 31 Jan. 31	25	Limited quota; cow or calf valid in that portion of Area 22 in the Muddy Creek drainage Unused Area 22 Type 6 licenses valid in the entire area
	7	Nov. 1	Jan. 31	25	Limited quota; cow or calf
111	1	Oct. 10	Oct. 31	25	Limited quota; any elk
	4	Oct. 10	Oct. 31	25	Limited quota; antlerless elk
	6	Oct. 10	Jan. 31	25	Limited quota; cow or calf valid in that portion of Area 111 off the Wyoming Game and Fish Commission's Morgan Creek Wildlife Habitat Management Area
	7	Nov. 1 Nov. 1	Jan. 31 Jan. 31	25	Limited quota; cow or calf valid in that portion of Area 111 off the Wyoming Game and Fish Commission's Morgan Creek Wildlife Habitat Management Area Unused Area 111 Type 1 and Type 4 licenses valid for antlerless elk in that portion of Area 111 off the Wyoming Game and Fish Commission's Morgan Creek Wildlife Habitat Management Area
<hr/>					
Archery 22, 111		Sep. 1	Sep. 30		Refer to Section 3 of this Chapter

Hunt Area	Type	Quota change from 2012
22	1	-25
	4	-50
	6	-25
	7	+25
111	1	-25
	4	-25
	6	-75
	7	+25
<b>Total</b>	<b>1</b>	<b>-50</b>
	<b>4</b>	<b>-75</b>
	<b>6 &amp; 7</b>	<b>-50</b>

### **Management Evaluation**

**Current Management Objective: 350**

**Management Strategy: Special**

**2012 Postseason Population Estimate: ~370-400**

**2013 Proposed Postseason Population Estimate: ~350-385**

### **Herd Unit Issues**

The management objective for the Ferris Elk Herd Unit is a post-season population objective of 350 elk. The management strategy is “special” management, with bull:cow ratios allowed to exceed 30:100 and the proportion of branch-antlered bulls expected to exceed 66 percent of the antlered harvest. The population objective and management strategy were last publicly reviewed in 1994. All affected major landowners strongly endorsed keeping the population objective of 350 elk during contacts in 2012.

Access is a major issue with this herd unit. While there are large blocks of accessible, public land, refugia created by several large ranches that have either been closed to hunting or greatly limited hunter numbers have denied hunters access to most of the elk in this herd unit. As increased harvests reduce elk numbers to objective, the lack of public access to these animals is expected to become more extreme.

### **Weather**

Drought continued in 2012, with almost no precipitation through the spring and summer. Drought was classified as moderate in April, severe in May and then extreme for all subsequent months through February 2013. Elk in these low elevation mountains have few options for finding green forage during dry conditions, with no high elevation alpine or mountain meadow habitats available. Body condition of most harvested elk checked in the field was poor.

### **Habitat**

While no herbaceous habitat transects are established within this herd unit, herbaceous forage production is expected to have been minimal due to record drought. Two browse transects have been established in this herd unit, but one was burned by fire in 2012 and the other was not read.

Over the past several years the Rawlins BLM has implemented prescribed burns in the Seminole and Ferris Mountains, partly to address conifer encroachment while also rejuvenating decadent mountain mahogany and bitterbrush stands. In the summer of 2012, two large wildfires in the Seminole Mountains and the eastern Ferris Mountains burned thousands of acres. These prescribed burns and the recent wildfires should benefit elk.

The Seminole Fire burned over 3,800 acres in the Seminole Mountains including areas within Morgan Creek WHMA. Rawlins BLM coordinated and funded aerial application of Plateau® to mitigate cheatgrass spread on BLM and WGFD managed areas within the fire perimeter. The wildfire enveloped several previously planned prescribed burns, although not with the desired prescriptions.

WGFD successfully negotiated with the BOR an extension of a twenty-five year Memorandum of Agreement. WGFD will continue to have primary management responsibility of Morgan Creek WHMA.

## **Field Data**

Obtaining reliable classification samples from small populations is difficult because, statistically, the majority of the population must be included in the sample to have any confidence in the resulting ratios. Ratios collected for this herd are further skewed because elk in this herd are not distributed randomly among the winter bands. Missing any of a handful of bachelor bull herds will significantly under-estimate bull:cow ratios. Failure to classify even one of the large cow/calf bands will greatly over-estimate bull:cow ratios, as happened in 2011. Without reliable, consistent herd ratios, efforts to model this small herd are unlikely to produce reliable estimates of herd size.

All of the 299 elk trend counted in January 2013 were classified, yielding a record low calf crop of only 23:100. Disturbance due to two wildfires may have contributed to low calf numbers, but severe drought certainly reduced calf survival across the herd unit. Calf production was poorest in Area 22, with only 10:100. While calf production was better in Area 111 at 33:100, this was still the lowest ratio in that area in 21 years. A majority of the calves in the Area 111 sample were found in the Haystack Mountains.

Since a majority of the herd was classified and only one band may or may not have been missed, the bull:cow ratio from the 2012 classification sample was probably the most reliable estimate in recent years. The 2012 ratio of 41:100 was well within the expected range for special management, the lowest ratio in five years, and less than half the 86:100 recorded in 2011. This supports the interpretation that the 2011 ratio was skewed by the small sample size and omission of one large cow/calf group in Area 111 that was not classified. The bull:cow ratio in Area 22 in 2012 was only 28:100, which failed to meet the “special” management criterion. The ratio was significantly higher in Area 111, which has several large ranches that are unavailable to most hunters, at 51:100. The spike:cow ratio was only 14:100, also the lowest in five years, despite the

high 61:100 calf crop reported in 2011. This ratio was similar between the two hunt areas, suggesting yearling recruitment was also affected by drought.

## **Harvest Data**

Success for hunters with Type 1 licenses remained high in 2012, at 69 percent in Area 22 and 76 percent in Area 111, which is not surprising given the high demand for these licenses. But the proportion of antlerless elk taken on these licenses rose to 10 percent. The average number of days hunted per elk harvested rose for this license type in Area 111, to the highest ever recorded for this area. This average also jumped to 31.9 days for hunters in this area with Type 4 antlerless elk licenses. Like the trend count data, these harvest statistics suggest this herd has successfully been reduced.

Beginning in 2010, Type 6 licenses in Area 22 were restricted to the Muddy Creek drainage for the first portion of the 5-week season to address damage concerns on irrigated hayfields. Success for hunters with these licenses was high, at 72 percent, but declined in 2011 to 62 percent and only 38 percent in 2012. The average number of days hunted per elk harvested on these licenses more than tripled in 2012, to 19.2 days. This license strategy has successfully reduced the number of elk found on these irrigated fields in the fall, despite the drought conditions.

To address a problem of inadequate harvests resulting from poor license sales, most of the antlerless licenses in Area 111 were converted into reduced price cow/calf licenses beginning in 2009. To address crowding issues in the Seminoes, those cow/calf licenses were not valid on the Morgan Creek WHMA. Despite this limitation, hunters with Type 6 licenses in Area 111 enjoyed 51 percent success in 2009, but this fell to only 39 percent in 2010, remained low at 43 percent in 2011 and then dropped to 27 percent in 2012. Increased license quotas and extended seasons have certainly affected elk numbers, at least on the portions of Area 111 that most hunters can access.

## **Population**

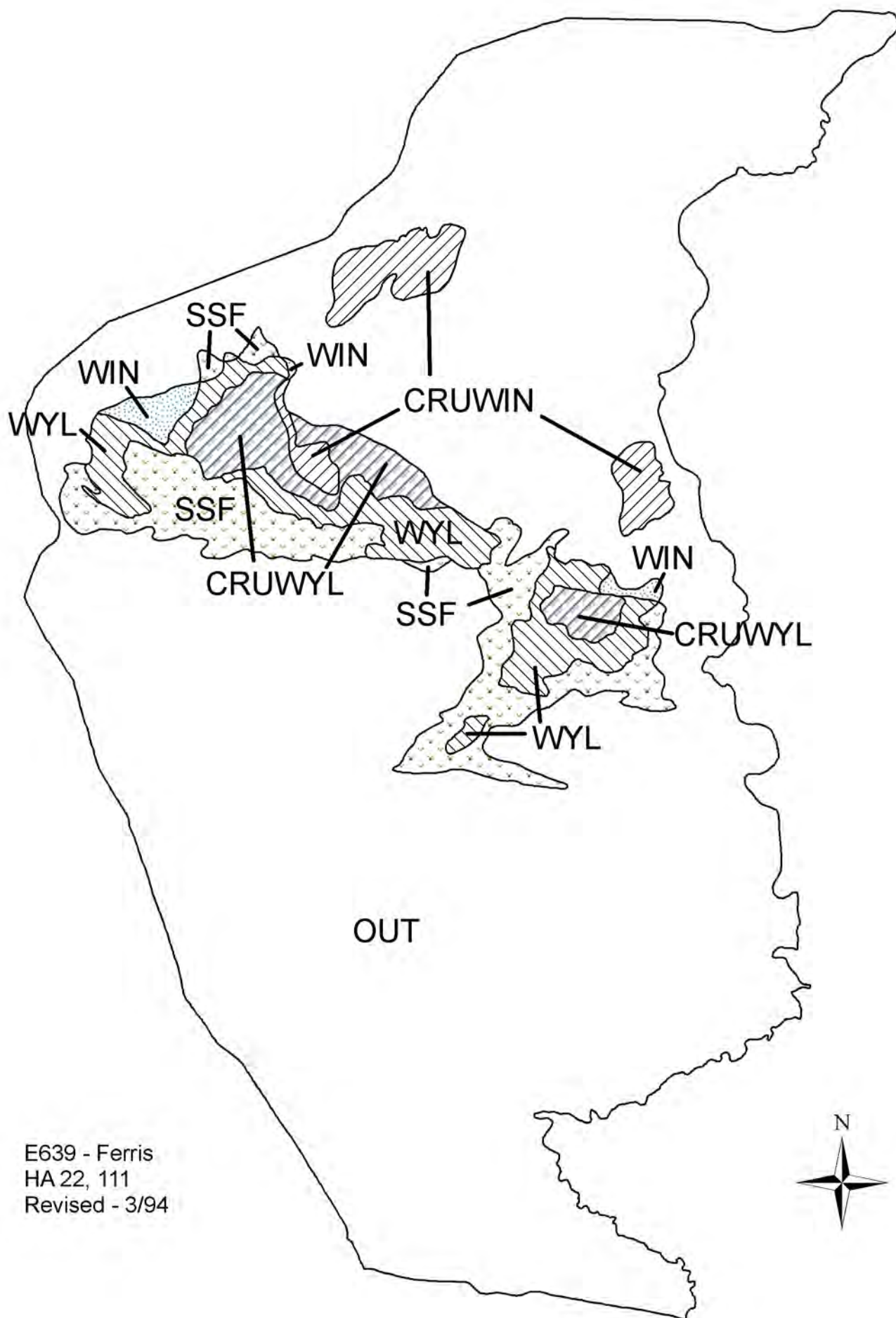
Past efforts to model this herd using standardized values for some parameters in POP-II failed, as did recent efforts to employ spreadsheet modeling. As a result, population estimates and harvest recommendations have been based on winter trend counts, applying estimates of annual calf production and harvest for years when counting conditions are not favorable. Counting conditions were excellent during helicopter surveys in December 2009, with good light, snow cover and quality digital video. A total of 627 elk were counted, 26 percent more than in 2008 and 40 percent greater than the 2007 trend count. Following two years of increased record harvests, particularly of antlerless elk, only 316 elk were found during a helicopter count in December 2011, but this survey missed one large cow/calf band in Area 111. After a third year of heavy harvests, a trend count with good conditions in January 2013 found only 299 elk in the two hunt areas. Hunter reports of an additional band of ~70 elk on the north side of the Seminole Mountains would put the total count only slightly above objective, but this assumes the elk the hunters reported were different from a similar sized band included in the count a week later, only 5-6 miles distant. If these were two observations of the same band of elk, the herd may currently be at or below the 350 objective.

## **Management Evaluation**

Increased harvests over the past three years, particularly of antlerless elk, coupled with the dramatically low calf production in 2012 explains the dramatic drop in trend counts and suggests this herd is currently at or near objective size. License quotas for 2013 were reduced in response, with all quotas set at minimal numbers, intended to slow herd reduction while providing reasonable chance of success for hunters applying for such tags. Expected harvest from the 2013 seasons is about 75 elk, with more than half being antlerless. Harvest should be roughly split between the two hunt areas.

Comments from several major landowners indicated they want elk harvested from this herd, but do not want public hunters on their lands. This herd offers an unusual opportunity where large portions of summer/fall habitats are on private lands with limited or no public access, but most winter ranges are on accessible public lands. Hence a strategy was initiated with an emergency regulation in 2012 and continued in 2013 to allow hunters to pursue antlerless elk as late as January, where most of the elk are expected to be on public land. The intent is to achieve harvest of the reproductive segment of most of the elk herd, not just the segments which are publicly available in the fall. Elk occupying the Haystack Mountains in checker-boarded lands in Area 111 will continue to be unavailable to most hunters.

All 2013 license types are consistent with the application booklets. Opening dates in both areas are consistent with the application booklets. Closing dates are the same as in the 2012 extended season. Archery seasons coincide with local deer archery seasons and archery seasons in neighboring elk areas.



E639 - Ferris  
HA 22, 111  
Revised - 3/94

## 2012 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2012 - 5/31/2013

HERD: EL643 - SHAMROCK

HUNT AREAS: 118

PREPARED BY: GREG HIATT

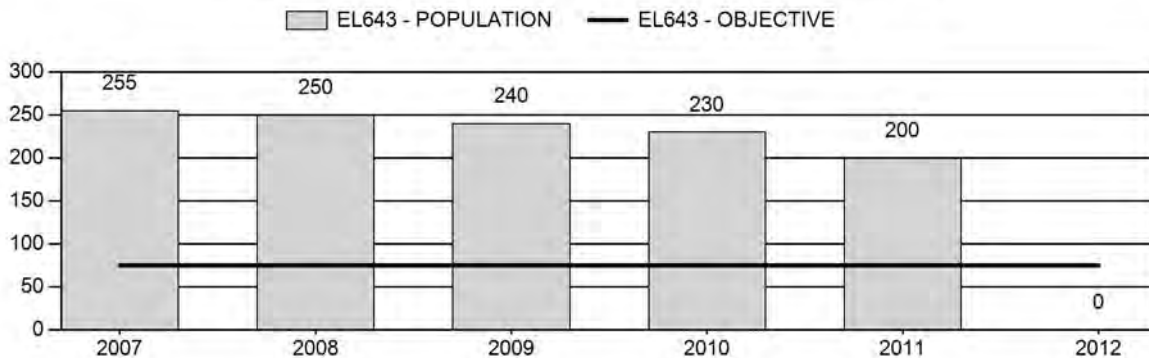
	<u>2007 - 2011 Average</u>	<u>2012</u>	<u>2013 Proposed</u>
Population:	235	N/A	N/A
Harvest:	65	50	27
Hunters:	93	134	67
Hunter Success:	70%	37%	40 %
Active Licenses:	98	138	67
Active License Percent:	66%	36%	40 %
Recreation Days:	453	782	400
Days Per Animal:	7.0	15.6	14.8
Males per 100 Females	0	0	
Juveniles per 100 Females	0	0	

Population Objective:	75
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	0
Model Date:	None

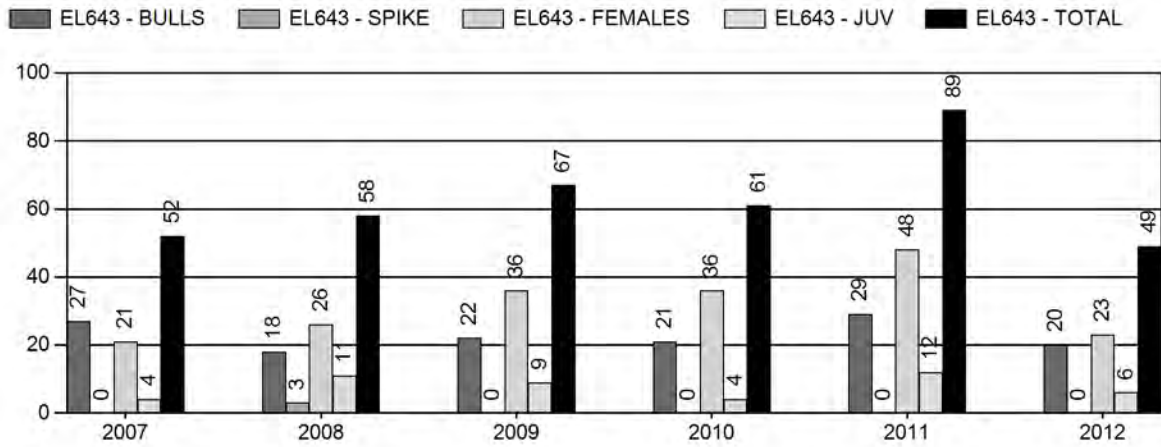
**Proposed harvest rates (percent of pre-season estimate for each sex/age group):**

	<u>JCR Year</u>	<u>Proposed</u>
Females $\geq$ 1 year old:	0%	0%
Males $\geq$ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	-7%	0%

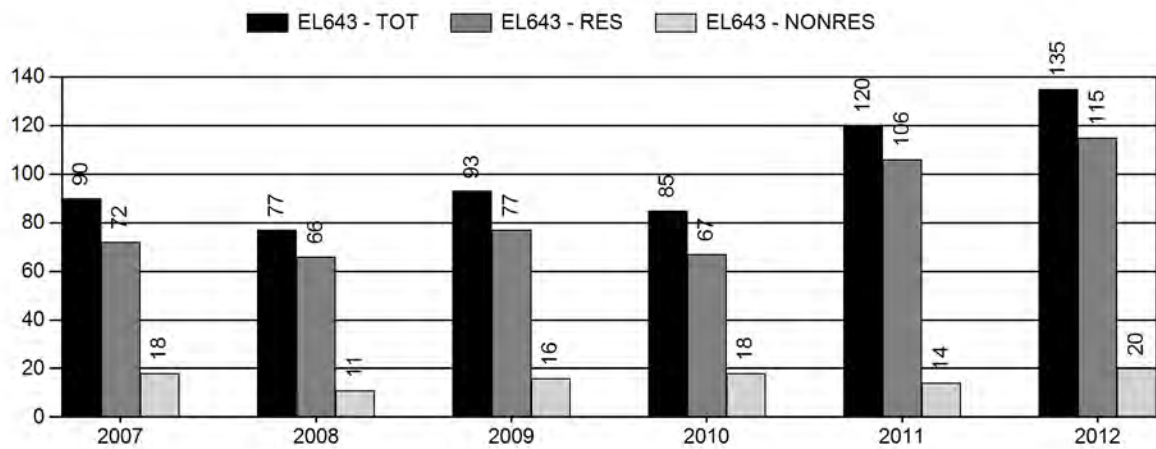
## Population Size - Postseason



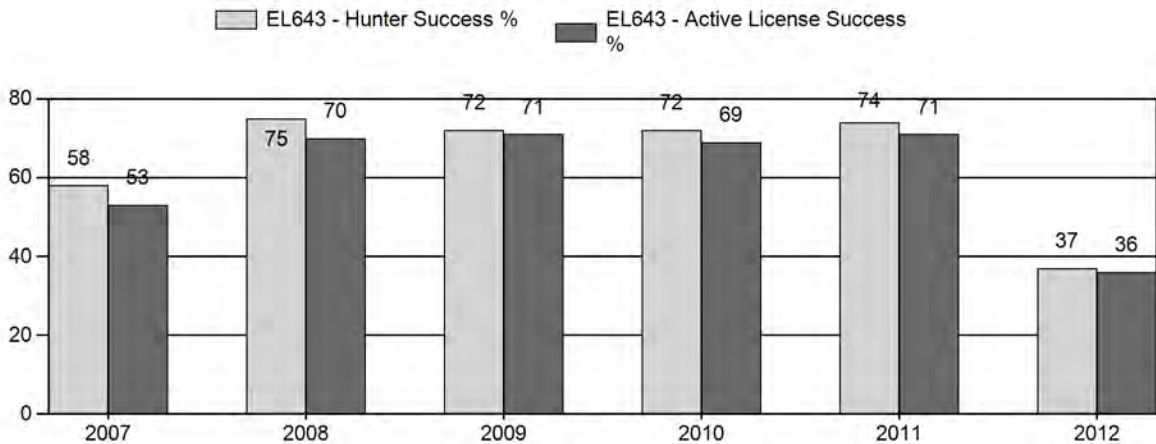
## Harvest



## Number of Hunters

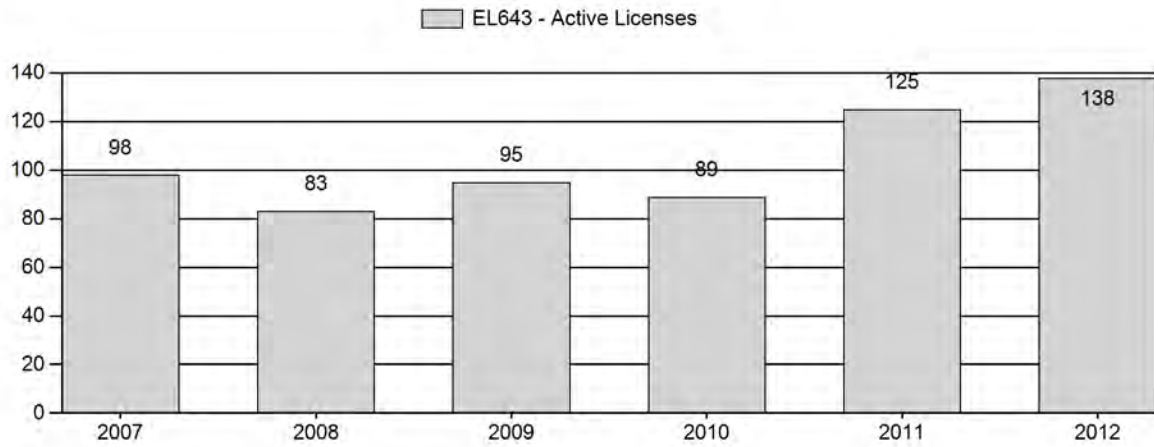


## Harvest Success

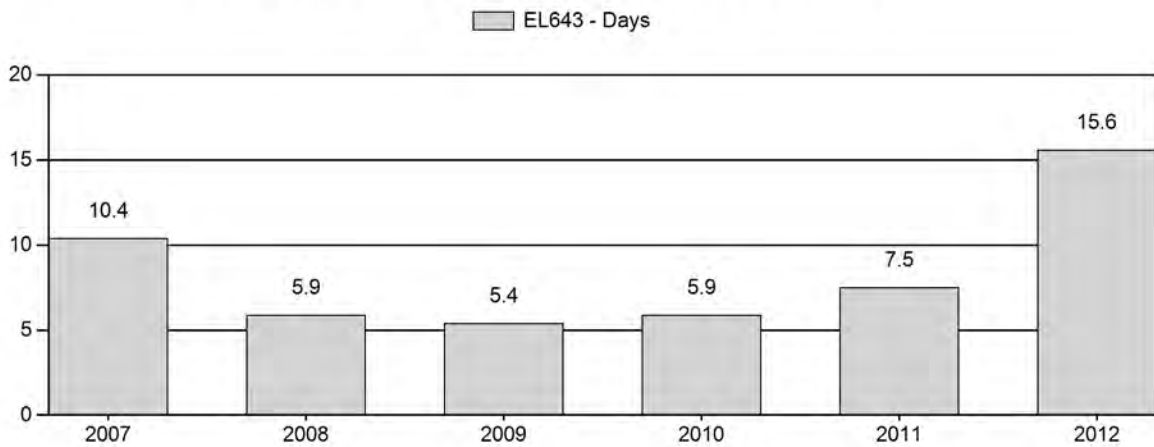




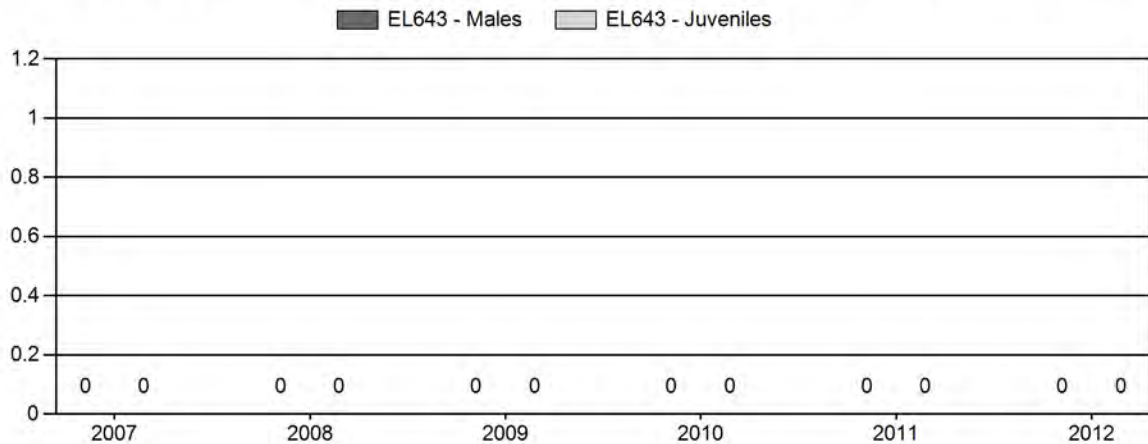
## Active Licenses



## Days per Animal Harvested



## Postseason Animals per 100 Females



**2013 HUNTING SEASONS  
SHAMROCK ELK HERD (EL643)**

<b>Hunt Area</b>	<b>Type</b>	<b>Dates of Seasons</b>		<b>Quota</b>	<b>Limitations</b>
		<b>Opens</b>	<b>Closes</b>		
118	1	Oct. 23	Nov. 12	25	Limited quota; antlered elk
	4	Oct. 23	Nov. 12	25	Limited quota; antlerless elk
	6	Oct. 1	Nov. 30	25	Limited quota; cow or calf valid in that portion of Area 118 south of the Mineral X Road (Sweetwater County Road 63 and BLM Road 3206)
<hr/>					
Archery					
118		Sep. 1	Sep. 30		Refer to Section 3 of this Chapter

Hunt Area	Type	Quota change from 2012
118	1	-10
	4	-55
	6	-15
<b>Total</b>	<b>1</b>	<b>-10</b>
	<b>4 &amp; 6</b>	<b>-70</b>

**Management Evaluation**

**Current Management Objective: 75**

**Management Strategy: Recreational**

**2012 Postseason Population Estimate: N/A**

**2013 Proposed Postseason Population Estimate: N/A**

The management objective for the Shamrock Elk Herd Unit is a post-season population objective of only 75 elk. The management strategy is recreational management. This objective and management strategy were first established in 1984, when elk were found almost exclusively in the southeastern quarter of the herd unit, and were last publicly reviewed in 1994.

**Herd Unit Issues**

This herd consists of bands of elk scattered in open sagebrush desert with three main areas of concentration in the southeast, southwest and the northeast corners of the herd unit. Observations have documented movement of bands of elk between these three concentration areas, as well as other herd units to the west and north, leading to confusion on the actual numbers of elk in the population. Aerial trend counts have been attempted, but often failed to find elk in all three areas simultaneously. Classification samples have been too small and inconsistent to allow for a

reliable herd model to guide management. As a result, license quotas have been based upon harvest statistics and simple assumptions of annular herd growth and harvest.

### **Weather**

Drought continued in 2012, with almost no precipitation through spring and summer. Drought was classified as moderate in April, severe in May and then extreme for all subsequent months through February 2013. Elk in this desert herd unit have few options for finding green forage during dry conditions, with no high elevation habitats available. These bands of elk are highly mobile, and observations before and during the 2012 hunt suggest a significant number of elk from the southwestern portion of the herd may have moved west into more mesic habitats in Area 100. Body condition of the few harvested elk checked was poor. A cow elk found dying of lichen toxicity just a few miles west of this herd in Area 100 in September suggests range conditions were poor enough in this part of the Red Desert to induce elk into feeding on toxic forage. Calf production was low in some neighboring herds due to drought conditions in 2012 and production is presumed to have been low in this desert herd as well.

### **Habitat**

While no herbaceous habitat transects are established within this herd unit, herbaceous forage production is expected to have been minimal due to record drought. Only one shrub transect has been established near this herd unit, on the Chain Lakes WHMA, but was not read in 2012.

BP America transferred ownership of two solar water wells on Chain Lakes WHMA to WGFD. WWNRT allocated \$8,000 to WGFD for development of these two wells. Once developed, these wells will provide additional water sources for wildlife and help disperse domestic livestock that graze Chain Lakes WHMA.

### **Field Data**

All classification samples for this herd have been statistically inadequate and no posthunt classification data were collected again this year. Dispersal of these elk in small bands across hundreds of square miles of sagebrush makes both aerial and ground classifications prohibitively expensive. Drought during 2012 reduced calf production in neighboring herds and production in this desert herd was presumably low as well.

### **Harvest Data**

Hunter success is typically quite high in this herd unit due to the open terrain and limited cover, but was exceptionally poor in 2012. Success for bull hunters dropped to 54 percent, the lowest in nine years. Success for Type 4 “antlerless elk” hunters, who could hunt the entire area, fell to 25 percent, the lowest ever recorded for this herd and less than half the success for this license type in each of the previous four years. Cow/calf hunters, limited to the southeastern corner, had only 35 percent success, the lowest for this license type since 1999.

The average number of days hunted per elk harvested jumped to 13.1 for Type 1 hunters and 20.5 for hunters with Type 4 licenses, the highest ever recorded for these licenses in this herd and more than double the previous 5-year average for each type. Similarly, this average effort for

cow/calf hunters was 13.9 days, the highest in eight years and 75 percent greater than the 5-year average.

## **Population**

While initially found only in the southeastern portion of the herd unit, over the past 20 years elk have expanded into most portions of Area 118, at least for some seasons of the year. Numbers increased as well, with Department personnel being able to confirm at least 270 elk in this area prior to the 2010 hunting season. Harvests were increased, and the herd was estimated at about 200 elk following the 2011 hunt. Harvest from Type 6 licenses was most effective at reducing elk numbers in the southeast corner where elk use of private lands has been a concern. Antlerless and cow/calf license quotas were increased again in 2012, by 26 percent.

Localized movement of elk westward into Area 100 cannot explain the difficulty hunters had finding elk to harvest in the entire area, nor those restricted to the southeastern corner. Increased harvests in recent years, coupled with what was probably a poor calf crop in 2012, has greatly reduced elk numbers across the herd unit.

## **Management Evaluation**

Because of the poor hunt seen in 2012, license quotas are reduced to the minimum of 25 for each type this year, intended to slow herd reduction while providing reasonable chance of success for hunters applying for each license type. Expected harvest from the 2013 season would be about 27 elk, with roughly half being antlerless elk. In previous years, cow/calf licenses were restricted to the southeastern portion of the area to address landowner concerns about elk numbers on private lands close to Rawlins. This strategy has been successful, and the restricted area for those Type 6 licenses is expanded to include all of the hunt area south of the Mineral X Road in 2013, which will encompass most private lands within the checkerboard.

Opening date in this hunt area has been in the third week of October since it was reopened to hunting in 1992. Recently, there have been years when significant numbers of elk moved west out of the southwestern portion of this herd unit into Area 100 before or during hunting season, reducing harvests. In an attempt to compensate for this movement, the opening date for this area was synchronized with Area 100 in 2011 and 2012, on Oct 15. The attempt failed, with a large number of elk still moving west in 2012. There simply is not enough hunting pressure in the eastern end of Area 100 to shift elk back into Area 118. Complaints about the earlier opening date were received from nearly every hunter contacted, most being upset about crowding due to the season opener coinciding with that for the deer season. Others commented on the lack of a Department presence in the field on opening day, and subsequent poor hunting behavior (chasing with vehicles, herd shooting) by some participants. Opening date in 2013 is returned to the traditional third week of October and avoids overlap with the general license deer hunt in the same area. To maintain the extra days of hunting opportunity provided in 2011 and 2012, the 2013 season is extended to Nov. 12. The archery season uses standardized dates and is comparable to those in neighboring areas.

The population objective of 75 elk adopted for this herd unit in 1984 may have been appropriate when elk were only resident in the checkerboard, primarily in the southeast corner near Rawlins. With increased elk numbers in the habitats shared with Area 100 to the west and expansion of

the population into mostly public lands north of the Mineral X Road, it may be reasonable to consider a different objective. To address concerns over elk use on private lands, a commitment to restrain elk numbers within the checkerboard may be beneficial. Realigning herd unit and hunt area boundaries with neighboring herds to the west and north may also improve management of elk in this area.

E643 - Shamrock  
HA 118  
Revised - 5/88

